THE CAPE AND ITS PEOPLE AND OTHER ESSAYS

THE CAPE AND ITS PEOPLE

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BY SOUTH AFRICAN WRITERS

EDITED BY

PROFESSOR NOBLE

CAPE TOWN

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1869

SAUL SOLOMON AND CO., CAPE TOWN.

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PREFACE BY THE EDITOR.

Some twelve months ago it was first suggested to me, by the publisher of this volume, that a periodical work might be produced under the title of "The Cape Literary Annual," consisting solely or mainly of light literary sketches, which might prove useful in fostering and developing whatever literary abilities, as well as tastes, exist in the Colony, and at the same time meet with a favourable reception from the reading public generally. I undertook the task of editing the first volume as a sort of experiment. After communicating with many correspondents through the country, the idea then in view was considerably modified; and the heartiness with which the original project was received by gentlemen of marked distinction in their respective departments induced me to aim at something higher, not to say more ambitious, than a mere collection of light fugitive sketches. The object of this volume, therefore, has been to present within a moderate compass a fair representation of the ideas of some of our principal thinkers and writers in South Africa on questions of literary,

scientific, and social interest. It will be seen that, with but one or two exceptions, the topics discussed have special relation to South Africa; but those exceptional subjects are of such universal human interest that no apology is required for their introduction. Should this volume meet with the public favour which is anticipated for it, and of which the established reputation of its writers justifies the expectation, it is probable that it may be followed by others of a similar character hereafter. The field for South African inquiry is very extensive, and as yet but little explored. Much work remains to be done in the literary, scientific, and social, as well as other departments of our existence; and I am glad to state that there is no deficiency of competent and willing workers.

For the present I need only add an expression of my hearty acknowledgment to the several contributors who have joined in this undertaking so readily and so entirely as a labour of love.

RODERICK NOBLE.

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THE CAPE AND ITS PEOPLE.

CHAPTER I.

EDUCATION.

Ut homo est, ita morem geras.

TER. ADELPH.

SOME importance may be attached to the education of a community consisting of elements so strangely varied and so anomalous in their characteristics as the population of the Cape Colony. The Cape of Good Hope arrests attention also by its unique geographical position, as being the half-way house of the world, and thus a convenient standpoint of observation of the older forms of Northern civilization, as well as of the recombination of old-world elements in the upspringing colonies of the South.

Equidistant from the slowly-developed substantial institutions and habits of Britain, and the speculative energy recently transplanted to Australian soil, the Cape has lived under the successive dynasties of Dutch and English Governors, offering the charm of a sunny healthy climate, without either the restlessness usually incident to Colonial life, or the absolute apathy of the Oriental character.

Cherishing thus a humble ambition, *auream mediocritatem*, and having no marked productions but wool and wine—wine unfairly maligned as some *vile Sabinum*—the Colony has seldom attracted much notice from the outer world; and those who have migrated to its shores have found that to achieve success here, as elsewhere, demands pains and continuous industry. Many, disappointed at missing the magic wand, which was to convert hopes into realities, airy castles into sterling material, have gone further on, to prove that the rolling stone gathers no moss.

Our shortcomings at the Cape are not a few: we need to husband, for our use, the rain that a short and genial winter freely bestows; we need to intercept and dam back the torrents that rush through some almost rainless tracts to the ocean; and laughing and glistering in the sunshine, as their waters bound and flow, seem to tell how they would enrich us, if we would only rescue them from the greedy sea: water is the only natural medium wanted to convert millions of acres of Karroo land into luxuriant cornfields, vineyards, and gardens; but the artificial helps, capital, enterprise, and persistent industry, are singularly deficient.

The Cape enjoys a climate where the heat seldom debars the native from sunning himself during a long day-dream of idleness; few his wants, and these are easily supplied; where the cold never pinches, and the joint influences of hunger and climate are never available as incentives to toil. What wonder, if brief spasmodic bursts of labour and the balmy softness of a tempered air indicate, or rather develop, a corresponding desultory character in the people? "Earth is here so kind, that just tickle her

with a hoe, and she laughs into harvest." The Colonists also, though of European origin, are amenable to the same influences; and it is to be observed that the generation of employers of Slave-labour is not yet extinct: the effects of that system are deeply-rooted and concomitant causes of the inertness, physical, political, and moral, which characterizes the bulk of the inland Colonists.

And who are the inhabitants of the Cape Colony, our southern *Ultima Thule?*—a question at first sight no more attractive, I fear, to general readers than the whereabouts and habits of the Britanni might have been to a citizen of Imperial Rome.

(1) The larger section of the Colonists is of Dutch origin, and their colloquial language is Dutch, owing to the occupation of the Cape Peninsula by the Dutch East India Company, for the promotion of their Indian trade, from A.D. 1652—1795. A considerable influx of French Protestant refugees from A.D. 1685—1688 brought a useful body of vine-growers and other artisans, now to be distinguished from the Dutch only by their names: the slopes of Constantia were then first planted with the vine. The tide of European politics by the peace of Amiens, in 1802, restored the Cape to the Batavian Republic, after having been six years under British rule; but since 1806 the Colony has remained a dependency of the British Crown. The white population is thus a composite of Dutch, French, British, and a fair number of German and other immigrants: these have contributed, in their order, during the last two centuries, to form a community, heterogeneous in its prime elements, but sufficiently amalgamated for social and political purposes.

(2) The mixed native population of the towns and villages, which constitutes *our lower orders*, and furnishes the ordinary labourers, artisans, coolies or porters, and domestic servants, embraces individuals of all hues and sizes, from the dark, clean-limbed, Kafir to the tawny-skinned wiry descendant of the Hottentot: the pure Hottentot is now but a myth of African lore. The mixed offspring of white and coloured parentage, of Europeans, Mozambique Negroes rescued from slavers, and Hottentots, forms the majority of the dusky inhabitants of Cape Town, the Metropolis: to these must be added a few thousands of Malay origin, of a fairer complexion, Mohammedans by faith, who have brought the deftly-handed characteristics of the Asiatic amongst the duller souls of African mould.

(3) The pure Native tribes, under the generic names of Kafirs and Fingoes (Amafengu), are found in large numbers only in the extreme Eastern Districts. The Fingoes, who since A.D. 1835 have been permitted to settle in locations over the grassy plains of Fort Peddie and the contiguous districts, as a reward for their attachment to the Colonial Government which released them from a state of slavery to the Amakosa Kafirs, have waxed fat and numerous under the protecting ægis of the British Government; some thousands have taken out titles to their own plots of land; and they appreciate British rule, if for no other reason, for the creature comforts which it secures to them. Those who dread the dying out of the Aborigines as a blot on our fame as civilizers and colonists, may be reminded that the overgrowth of these natives within the limits originally

assigned to them, compelled the present Governor, Sir Philip Wodehouse, to arrange the exodus of several thousand colonial Fingoes to ampler tracts beyond the river Kei, a policy dictated alike by prudence and humanity. The Kafirs, under various tribal names, as Gaika, 'Tslambi, Tembu (Tambookie), &c., live chiefly within and around the newly-annexed divisions of King William's Town and East London, generally known as British Kaffraria: the authority of the native chiefs is restricted within certain limits by the presence of a resident British agent or magistrate. Not yet freed from the thraldom of their own savage rites and institutions, the Fingoes and Kafirs offer a wide field for the exercise of the philanthropism of the day. The broad-hearted earnest Missionary, who puts little value on those lip professions of natives which find utterance in time-honoured symbols, unmeaning to them and evidencing no reality or depth of religious impressions, but strives to foster habits of industry, order, and obedience, and the love of truth, and on this prepared soil sows the seeds of a higher humanity, has our hearty sympathy in the attempt to elevate a race susceptible of high intellectual development.

The distribution of these great sections of the population of the Cape Colony is thus roughly estimated; 180,000 of European origin; 220,000 of Hottentot and other mixed native descent; and 180,000 Kafirs.

Any system of Education which claims to be public or national must embrace these three sections of the Cape population, and, whilst excluding none of any class, creed, or colour from participation in the advantages of the

highest schools, must yet be framed to suit the peculiar needs of the peaceable mass, of mixed origin, just emerging from a state of heathenism, and of the great and less settled number of tribal natives who have been scarcely reached, much less influenced, as yet by the teaching either of the Church or the School.

The Cape Education Act of 1865 contains provisions liberal and comprehensive; the Colonial Government acknowledges its obligations to promote the education of all, and seeks to do so among the higher and middle classes, not by compulsory enactments, but by putting them in the way of organizing their own schools, of securing competent teachers, and of providing school requisites. The poorer and coloured classes cannot be reached by this direct agency, and therefore the Government avails itself of the co-operation of various Religious and Educational Societies to manage, and provide teachers for, their elementary and industrial instruction.

The Orders of Schools aided by annual grants from the Colonial Treasury are three:

(A.) Undenominational Public Schools. *Class I.*—The chief town of each of the forty-seven divisions of the Colony may have a First-class School, or what would be called in England a *Grammar School*, or in Germany a *Gymnasium*, of two departments; the Principal and Assistant receiving guaranteed salaries of £250 and £150 per annum, respectively, of which one half is provided by Government. *Class II.*—Other towns and villages have a Second-class School under one teacher, with a salary ranging from £100 to £150 per annum, the

grant-in-aid not exceeding the half salary. *Class III.*—A cluster of farms where twenty to thirty children can be assembled at one place for daily instruction is accepted as a school-station; the teacher's salary must be not less than £60 per annum, with a residence, the grant being £30 per annum.

The resident householders, or those among them who are willing to share in the guarantee for the maintenance of a teacher, elect the Managers, with whom rest the nomination of the public teacher and the general discipline and control of the school, subject to the approval of the Superintendent-General of Education, who, on behalf of the Government, exercises the right of inspection and of satisfying himself that the school is efficiently conducted, and that the grants are duly appropriated to the payment of the teachers' salaries.

These Public Schools are frequented chiefly by children of European descent; a moderate fee is levied, except in cases of acknowledged inability to pay: and the Managers are at liberty to provide for the religious instruction of the scholars, at an hour to be set apart by them, not being during the four ordinary school-hours; but no scholars are to be compelled to attend for religious instruction, without the consent of their parents or guardians.

The cope-stone of this graduated series of Public Schools consists, at present, of two Colleges, the one in the Western and the other in the Midland Districts, each having a Government grant of £400 per annum, and of an Examining Board, authorized by law to issue certificates of attainments in Literature and Science, and in Law and Jurisprudence.

Order B comprehends the numerous Mission Schools for the education of the children of the poorer class, which lives by manual labour, and cannot from social position and want of means form and manage its own schools: these are under the direction of the Missionary Societies, whose congregations are largely, and in most cases wholly, composed of the mixed coloured races. The religious education of the poor is the acknowledged object of these Societies; but the Government aid is expressly given to promote the secular instruction of all the children of the locality in which the Mission is placed; and the restrictive religious clause secures the public from the oppressiveness of a denominational management. A series of separate infant, juvenile, and female industrial departments is aided by a grant of £75 per annum, which can be applied only to pay the salaries of teachers.

Order C consists of Day-schools, Boarding, and Industrial Institutions, for the civilization of the tribal Natives along the Eastern Frontier, some 700 miles from Cape Town. Schools, where Kafir only is taught at first, are formed at Out-stations under Native teachers, receiving each a salary of £20 to £30 per annum, with a residence; in due course a superior Native, qualified to teach the ordinary subjects in English, and receiving a salary of £50 to £60 per annum, supersedes the former; the more promising youths are drafted to the Main Station, where provision is made not only for the day-school instruction of all within a reasonable distance, but also for Native boys and girls to live within the influence of the Missionary's home, and to learn some trade, as carpentry, wagonmaking, tailoring, shoemaking, and, in some cases,

printing and bookbinding; many boys are also trained as schoolmasters, and girls for domestic service. The rates of maintenance money, as paid by the Government, are from £10 to £15 per annum for each Boarder, and liberal grants towards the salaries of the teachers at the Main Stations are also made. The Church of England, the Free Church of Scotland, and the Wesleyan Society are most conspicuous for their labours in this wide and, as regards the security of the Colony, signally important branch of the Colonial System of Education.

This brief outline may, it is hoped, convey even to those unacquainted with the Cape, some idea of the efforts now exerted by the Government and the Colonists to keep the children of the higher and middle classes up to the standard of their peers in Europe, and to raise the Natives to an appreciation of the humanities of civilized life.

The prospect of the evangelization of the teeming hordes of savages in Central Africa gave lately a vent to the pent-up enthusiasm of philanthropists at home: Oxford and Cambridge felt the summons from this other Macedonia to come over and help; but whilst the Universities' Mission is struggling to secure a stand-point in Eastern Africa, and in an intermittent way to civilize the tribes about Zanzibar, amid every discouragement of climate, language, and foreign rule, the thousands of Kafirs settled in the healthy and lovely vales of our Amatolas wait the accession of men of energy, prudence, and faith, to bring the elements of civilization among them. Where duty calls, the hearts of such evangelists as Livingstone and Mackenzie will ever respond; but

whilst labour in such a clime can lead to little result beyond the sad repetition of the fate that struck down the apostolic Mackenzie, the great work at our feet is overlooked, or only partially done.

And yet the future of Central Africa will be more surely influenced by working from the Cape upwards, by civilizing the tribes who are our neighbours and fellow-subjects, than by all the fitful bursts of enthusiasm, however well meant, to carry the banner of evangelism direct into the heart of the African Continent.

We would fain wean earnest men, leaders of public opinion, and promoters of Missions,

> From reveries so airy ; from the toil
> Of dropping buckets into empty wells,
> And growing old in drawing nothing up.

CHAPTER II.

SOCIETY, RELIGIOUS AND POLITICAL.

> Black's not so black, nor white so very white.
>
> ANTI-JACOBIN.

THOSE who are favoured by nature with white skins hug themselves in the notion that it is their business to whitewash that moiety of humanity which is of darker hue. The notion would not be so much amiss if they had settled among themselves some standard of moral and religious whiteness. The Natives who are the objects of all this solicitude must be sorely mazed with the lessons they have to learn, no less than with the diverse

shapes in which the Christianity that comes to them is clothed—lessons and shapes so conflicting,

> Ut nec pes nec caput uni
> Reddatur formæ.

It is difficult to anticipate the resultant, either in degree or direction, of the evangelizing forces now brought to bear on a heathen mind. *Sic itur ad astra*, explains one teacher to the inquiring Kafir, whilst another puts in a *caveas* against the *sic*. The grave subject of the polygamist Kafir being compelled to put away all his wives but one, before he can be admitted within the Christian pale, is still open; and he hits hard who argues that Christianity cannot require a man to injure others —*his wives* according to law and conscience, and *their children*, legitimate and having corresponding rights—for the sake of spiritual benefit to himself. What of the *wives* so put away? What is their *status?* These are the remarks of one who believes that "Man's work on earth is something more than, at a loss to others, to save his own soul." The Church of England blows hot within our borders and cold beyond; reaching in one place after the materialism of mediæval ceremonials against which she once became Protestant; in another place, so zealous for the high prerogatives of humanity, as to lose a clear apprehension of the divinity that stirred within Him, her Founder. There is no doubt that her ecclesiastical polity and unity of interests with monarchy chime in with the traditions and aristocratic institutions of the Kafir tribes, and the bond of coherence, happily not yet a rope of sand, between the State and the Church,

lends undoubted dignity to the latter in Native eyes, and conciliates respect and submission to the former.

Protestant Societies of various denominations, the Moravian, the London, the French, the Rhenish, the Berlin, the Free Church of Scotland, the Wesleyan, and the Church of England, have entered South Africa with their respective Missionary forces, to do battle with heathenism: but the abnormal condition of the Christian Church, at one only in the jealousy with which each section regards the work of every other, weakens the moral strength of the teacher, and puzzles the Native's mind, keen enough to wonder why he should be the object of a competitive system of proselytism.

The sentimentality of levelling Christians is not unknown, and has ere this produced its fruit; "we . . . we band of brothers" are inconvenient watchwords, even if incorporating a latent truth, among a half-tamed population; on the other hand, the judicious working and sober influence of several great Missions, as keeping in view the practical and the useful, whilst not heedless of the spiritual, has been and is an evidence that there is no necessary connection between equality as Christians and insubordination as Citizens.

Earnest workers are most of the Missionaries. Of the fruits of labour it is not safe to speak; Societies and Missionary Meetings at home have their own measures; good men and women, who live at home at ease, expect some return for their contributions; and the return reads well and looks well in print: Colonists accept much of it as news. He who would honestly measure the results of missionary teaching and influence must extend the

horizon of his observation some thirty or forty years back; taking a retrospect of what the Eastern Districts, for instance, were at that time; of the then lonely, yet as now lovely, slopes of the Kat River heights; of the untenanted wastes that stretched over where Queen's Town now flourishes,—untenanted save where here and there some Native kraals dotted the more fertile spots, the observer will have found nothing but what characterizes the lowest types of humanity; now, the Missionary proudly points to Churches and Schools that have risen chiefly from the self-reliant efforts of the Christianized Natives; neatly-dressed and well-behaved congregations of coloured races throng churchwards at the call of the Sabbath-bell, and the voices of thousands rise to God in devotional hymns, where superstition and debasing rites had encrusted the particle of inborn Truth.

And if the Native has come to look on Christian truth objectively and the material blessings, the loaves and fishes, subjectively, who shall judge him? The teacher has, however, other hindrances to success besides the natural repugnance of the Native to a religion of self-denial: it is sometimes doubted whether the European Missionary can do as much good for the soul, as the habits of so-called civilized life, introduced by demoralized Europeans, traders and others, do harm to the body.

The Cape community, as a whole, is essentially religious; almost puritanical in its notions about literature and amusements, and a little too pharisaic in type to be able to live at peace with itself. The Calvinist keeps wide the gulf between himself and the Episcopalian, as does

our Low Churchman between himself and the Ritualist,—a gulf too wide even for the larger-hearted sympathy of him of the Broad Church to span. With all the freedom of action and thought that is commonly associated with Colonial life and manners, the Cape religionists have not learned the true tolerance which disdains to measure a man's worth by the lights and shadows of his faith. This their idiosyncrasy, for America and Australia are presumed to differ from the Cape widely in this respect, is to be attributed to the peculiar tone and religious feeling introduced by the early immigrants of Dutch and French origin, and handed down from generation to generation of a people, secluded from the European world, and thus inaccessible to the influences of the newspaper and the serial. These adherents of the Dutch Reformed Church constitute the large conservative element in the Cape world of politics. Ignorant of and uninterested in the stirring politics of Europe, and having little intercourse, either by reading or by travel, with older and more cultivated communities, the inhabitants of the inland districts have long settled down to an apathy and inertness of life, which is a great bar to progress; and those who are apt to look at colonies as nurseries of republicanism, rowdyism, and similar types of a restless society, need to be told that no such elements exist in the political creed of our Dutch Colonists.

Those who remember the Cape Colony one-and-twenty years ago, when the See of Cape Town was founded, and the first Bishop of the Church of England settled amongst us, will acknowledge the marked and inspiriting influence exercised by that Church on our religious and

social atmosphere. It is true that religious rivalry has become more active ; but in the cause of the elevation of the heathen mass, such rivalry is better than the stagnation which even yet clogs the wheels of our greatest Religious Society, the Dutch Reformed Church. The still waters of the Protestant communities were ruffled by the inlet of a freshet of English University men of good standing, who brought into colonial society new tones of thought and more æsthetic tastes ; they also linked our colonial lads with home, by developing in them somewhat of the habits, sports, and modes of thought of English public-school life. It may be objected that they have done this rather by the establishment of schools on exclusively Church principles than by falling in with the relations which have ever subsisted in regard to education between the Government and the people of the Colony. This exclusiveness, which amounts to prejudice, if not to bigotry, keeps the Church of England in antagonism to many who admire her spirit and energy, but are bold and free to think that the great and long-sustained efforts for the evangelization, as well as the civilization, of the natives, which had been put forth by other missionary bodies many years before the Church of England awoke to her duties here, deserved more candid acknowledgment, if they could not command the co-operation, of those who were sent into the Vineyard at the eleventh hour.

A Church so set in her movements and forms of worship, so tenacious of the letter and symbolism of antiquity, and investing all her spiritual agency with that which sets a barrier between the laic and the cleric, has peculiar difficulties to encounter when she goes forth on a

crusade in a new country, where every phase of life and feeling is adverse to formalism, and where society is indisposed to bow even to the conventionalities of the great world at home. But there is that in her which, when she has acquired the elasticity of a Nonconformist body, without sacrificing the unity of her government, will spread a wide and permanent influence throughout South Africa; the greatness of her future will come when her sympathies are widened, and when she pursues with a singleness of eye and aim the diffusion of Christian truth. It is vain to repeat among an ignorant or heathen people her grand liturgical services, which represent the compressed expressions of the piety of ages, and go hand-in-hand with the accompaniments of robe, and choir, and gothic aisle. The Priest must come down from his pedestal before he can be a successful Missionary; he must become Paul, the tentmaker, teaching and preaching, whilst he works.

The towering pile of St. Mary's Roman Catholic Cathedral, the too classic edifice of St. George's, the more capacious than elegant structures of the Dutch-Reformed Church, the aspiring gothic of St. John's and of the Congregational Church, and a host of others, Wesleyan, Scotch, Lutheran, and miscellaneous by denomination, tell how Christianity in Protean forms has visited the Cape of Good Hope. Happy Cape, if the conflict of religious strife does not restore its former ill-omened name, Cabo del Totos Tormentos.

The asceticism and somewhat unsocial element of the colonial character does not much affect the English-speaking portion of the people, and perhaps least of all

Cape Town Society, where the amenities of life are accessible and fairly appreciated. Friends at home are apt to encompass our dwellings with Kafir marauders and a lion or two, and more than one recent voyager to the Cape has been cautioned to be well provided with ammunition, perhaps not so much for self-defence as to secure a morning meal. Alas! there is nothing so picturesque or exciting about our daily occupations. Except for the bright, light, cheery atmosphere, Cape life might be as prosaic as in an old cathedral city.

Cape Town and its charming environs, with a population of some 30,000, form the "shank end of the leg of mutton," as our Eastern Colonists describe it; the position is thus a favoured one, for there is a continual influx of military and naval visitors from the Eastern world as well as from England, who introduce an ever-fresh element into our social circles. Through their eyes the cits of Cape Town catch a glimpse of the "untravelled world;" and just as we are sinking into a periodic dulness, the half-monthly mail pours in a budget of European gossip, political, commercial, and religious; serials, heavy, didactic, and light; and novels sensational. These break in agreeably upon our routine. A well-filled Public Library, in a noble building sheltered by oak-groves, opens gratuitously from morn to eve its old and modern treasures to those who thirst for knowledge; and the adjoining Botanic Gardens offer a charming show-ground, with the accompaniments of flowers, fountains, and music, to the fashion and beauty of our capital.

The political side of the colonial character is certainly not of so Protean a complexion as the religious. The colouring

is due largely to local causes: an isolated Colony, long under the rule of a Government which was at once patriarchal and pedagogic, learned to acquiesce in the apathetic state of having all its matters controlled and directed by an agency which formed no part of itself. To look to the Government for roads and bridges, for schools and clergy, to bow to laws sumptuary, was physically easier and far safer than to provoke the imputation of disaffection which seemed then to underlie a show of energy or self-help. Even now, the absence of enterprise, the locked-up capital, the cry to the powers that be for remedial measures of all kinds, for employment of the labourers, male and female, who are becoming demoralized by idleness and poverty, for irrigating the soil which has all the elements of fertility, for improving, or getting a market for, colonial wine, for the encouragement of silk culture,—all tell how the old Cape lethargy permeates our machinery.

While colonies of mushroom growth are founded and developed to the fulness of their stature in self-government by industry, enterprise, and self-reliance, the Cape resembles the boy, who wishing to learn to swim, shudders at the first contact with the limpid element, and inwardly resolves to run no such risk until he has mastered the art. To mount the box-seat and handle the ribands of the Government car is too great a task to be undertaken by a representative of the people, until all are satisfied that the charioteer knows how to drive. The Roman satirist tells something apposite:

> Rusticus expectat dum defluat amnis; at ille
> Volvitur, et volvetur in omne volubilis ævum.

The qualities that lie at the base of the greatness of

the Anglo-Saxon race find their analogues in the Dutch character. These may have been overlaid at the Cape by the indolence, superinduced by climate, and by peculiar social and political institutions; the crust may need to be broken: Cape life savours too much of the *quieta non movere;* thus we would fain float idly down the gentle current of our life-stream:

> How sweet it were, hearing the downward stream,
> With half-shut eyes to seem
> Falling asleep in a half dream,
> To dream and dream ——

The Cape gossips about changes. The Radical is here the Constitutionalist; he sees perfection in the bicameral system of Parliament; anticipates a panacea for infirmities, social and commercial, in assimilating the Cape Constitution to the Imperial image—reduced in size; tempered in colouring; but, in essence, identical. The Conservative quails before our almost universal franchise, our small and ill-informed population, and fears the Niagara: he truly says our Legislative Council, or Upper House, is elected by the same electors as is the House of Assembly, and for a limited period; consists of the same elements as the Lower, men moving in the same everyday sphere, occupied in the same pursuits, having no greater stake in their country's weal than most of those who sit on humbler benches: he who argues for a miniature facsimile of the three Estates to be reproduced here, argues *à non causa pro causa:* "like—like—but oh! how different!" The Conservative, faithless as regards mankind, thinks with Sheridan that conscience has no more to do with politics than with gallantry; and, contemplating the political arena bare of

men of mark, forgets the great lesson of History, that a national crisis ever brings latent greatness to the front, just as "courage mounteth with occasion."

Meanwhile, the pulse of Colonial life beats more feebly,—omen of early dissolution: a gossip prescribes,—One House, small enough for the Public Purse to meet its cost, large enough to prevent its being led by local cliques; legislators unpaid; a due appreciation of the value of the franchise, and the exercise of it by those only who are educated enough to use the privilege with discrimination;* and a party-cabinet of three representatives. Well! the public asks, *Cui bono?* To the individual citizen, decrease and economy in expenditure, *ergò* diminished taxation? enterprise in public works, *ergò* employment of labour? increase of public confidence, *ergò* free investment of unemployed capital? to the Colony at large, an infusion of life into the dry bones of Society? a unification of interests, English and Dutch, Eastern and Western? to the legislator, a sop to his ambition? place, power, patronage? Such results might follow; *fiat experimentum*; although

> The best laid schemes o' mice and men
> Gang aft agley.

* In 1855, the following amendment of the Constitution of Connecticut was adopted,—"Every person shall be able to read any article of the Constitution, or any section of the Statutes of this State, before being admitted as an elector."

OUR CLIMATE.

All the world is agreed that the Cape is a charming colony: its character for salubrity has never been impeached; and yet it is perfectly astonishing how little is known of the actual effects of its climate in modifying disease. Here and there, amid the current literature of the day, we may meet with graceful and grateful recognition of the immediate benefits derived by the writers from a visit to the Cape; but their stay, in general, has been so short, and their details of ailments so vague and emotional, as to rob their enthusiastic testimony of much, or indeed of any, importance in a professional point of view.

We possess, nevertheless, in the admirable reports of Major Tulloch, the strongest proofs that the low ratio ($3\frac{9}{10}$ per 1,000) of sickness and mortality among the troops in his time was mainly attributable to the extreme rarity of *diseases of the lungs;* while a cloud of witnesses could be brought to testify to the remarkable exemption from fevers, cholera, hepatic and nervous affections, which the Cape Colonist has hitherto in ignorance enjoyed. A great distinction, however, is to be drawn between the colonists proper and casual visitors, as regards their relation to the climate of the Cape. The actual con-

dition of many who come to look for health upon our shores is frequently veiled by a variety of causes, and by none more commonly than by the natural reluctance to leave Europe until cases are almost hopeless; while for the permanent residents, the perpetual sunshine and summer of existence are apt to breed *ennui*, and a constitutional languor, which can only be alleviated by a trip to Europe. Within a certain period,—varying from three years to five,—the changes for the better are very marked in all cases of physical exhaustion or organic debility: while the causes which tend to enervate and enfeeble, as well as to strengthen and invigorate us are strictly local and capable of improvement.

And, first, of the absence of *damp*. The relation between the action of the skin and the mucous membrane, in warm latitudes, is so intimate and great that too much care cannot be taken by medical men in the study of those causes which violently affect or impede the respiratory process. With a climate like ours, in which the average temperature in winter, according to Sir Thomas Maclear, is only 14·42 degrees below that of summer, it stands to reason that, while the extreme cold seldom falls below 37·7, or the greatest heat exceeds 96·8, the mean, 61·72, is insufficient to make us neglect the ordinary precautions of prudent people in the management of health. The Cape may then be said to possess a *dry*, healthy climate, without violent changes from heat to cold, *as shown by thermometer;* but there is a great difference between *sensible* heat and that indicated by instrument, and this seems to depend greatly on the state, force, dryness, and direction of the *winds*. Whenever these are strong, as in

November, December, and January, coming fresh from the sea, heat is seldom felt to be oppressive, even at the height of summer; and exposure to the sun at all hours (*teste* Lady Duff Gordon), under such circumstances, is a constant practice with everybody.

In calm weather, on the contrary, even in winter months, namely, May, June, July, the amount of solar radiation is so great that exposure to the sun is sometimes attended with a most disagreeable *feeling* of heat. Upon the position, then, of any place or hamlet, with reference to the winds, does its coolness depend. In summer, all localities to the windward, or south-east side of mountains, are cool, dry, and pleasant; while places to the leeward, as Cape Town, Wellington, &c., are either pulverized by south-easters or made suffocatingly hot by radiation from the bare rocky masses encircling them. And yet Cape Town is not such a very bad place to live in, after all. If the days are sometimes hot and sweltering, the nights are truly lovely. Talk of the poetry of moonlight, and of purple skies thickly studded with diamond stars, and even "Colonus Capensis" has "to strain his prosaic brains" to do justice to the glorious reality of a Cape summer evening. From sunset till long past midnight, the most delicate may with perfect safety enjoy the balmy coolness of the air under verandahs and on "stoeps;" while in the days when Indian officers regarded the Cape as their sanatorium, no station on the hills could have shown more merriment, or better dancing parties, picnics, and balls, than the hospitable slopes of Wynberg, Rondebosch, and Constantia. Though much of this is changed; though there is very little trade, or anything else, doing

at the Cape; though wealthy visitors are scarce, and men of ample means prefer to spend their money in London and Paris to dispensing hospitality and earning enjoyment of their lives in the Colony, yet there is still a good deal of excellent society to be found in the company of the many highly-educated people who have made it their home. And it is to this change of scene, and dress, and habit that we have to look for the destruction of that insular exclusiveness which in itself is one of the greatest drawbacks to the well-doing of European invalids. The more thorough their capacity to enjoy field sports and open-air exercise, the more rapidly are dispelled the *ennui*, dyspepsia, and sense of *malaise*, which at all times confinement to a sick-room so rapidly engenders. It is, therefore, of the highest importance that visitors in delicate health should still be strong enough to get about either on foot or on horseback, and so, by frequent change from place to place, as the seasons revolve, derive every procurable benefit that the Colony can afford them. Even in the wettest season the porous, sandy soil rapidly carries off the torrents of water with which the fields are sometimes almost flooded, and nothing can be more truly delicious than the balmy yet bracing weather which precedes and follows a rainy day in winter. At all times, the cool early mornings and the period of sunset are available for exercise. It is never either too hot or too cold in the summer to take a long round before breakfast; and the horses of the Cape are so hardy, and so pleasant in their paces, that even the most timid can always procure the luxury of a ride at a very moderate expenditure. The roads and bridle-paths are everywhere

in tolerably good order; while in the immediate neighbourhood of Cape Town, the country about Protea, Newlands, Wynberg, Constantia, &c., abounds with the most exquisite combination of hill and valley, wood and rocky scenery, and the most lovely landscapes for those of artistic tastes and with strength to indulge them.

We dwell on these details because we desire to have it made known that in coming to the Cape Colony we are not to be regarded by people as a mere refuge for the asthmatic, dyspeptic, and tuberculous members of society, but as a fine field for the exercise of thrift and liberality of idea, with a tolerably good soil for the investment of capital. Without attempting to compete with foreign watering-places in mere gaiety and public amusements, we are only a month behind the larger towns of England in commercial, political, and social intelligence, and have every reason to be proud of the abundant liberties we enjoy. If we are not so well adapted for the relief of minds diseased, or for those who are depressed by sorrows and mental cares, as the stirring cities of the West, with their hum of excitement; at all events, we can supply abundance of fresh air and water, and as much out-of-door enjoyment as is good for mere mortals and their four-footed friends.

Here, then, in South Africa, we can offer a home to the delicate, which, within a moderate radius from Cape Town, affords several distinct climates for those whose lungs, livers, or joints are painfully out of gear. These atmospheric differences are as distinctly marked by local peculiarities and characteristics as are Torquay, Bourne-

mouth, Hastings, or the Isle of Wight, and are all within the soothing influences of sea breezes and the sandy beaches of our numerous bays. It is partly owing to the shelter of woods, and partly to the proximity of mountain peaks, that there is such a very pleasant difference to be found in the quality of the air and the degrees of temperature along our coast, both of the Eastern and Western Provinces. The intervention, too, of hills and the existence of well-wooded ravines are not confined to a few favoured spots, but form a feature of the Colony, which, in connection with *elevation above level of the sea*, and the direction and velocity of local winds, makes all the difference between the Frontier, Seaboard, and Karoo districts, and which are, on the question of residence, a fit subject for medical advice. The winds, indeed, are entirely different in character, according as they blow against or over the sides of mountain masses; and while it may be blowing at the rate of eight or ten miles an hour across the Cape Downs, with a delicious sense of coolness to the traveller or sportsman, the same south-east wind may be observed slowly banking up in dark vapoury masses over the Constantia range of hills; getting these more and more packed and condensed until they reach the edge of Table Mountain, when, suddenly meeting expansion point, it parts with all its coldness and vapour, and howls in terrific gusts down the waterworn and windtorn ravines, at the rate of possibly forty miles an hour. There is no nonsense about a south-easter. It blows until everything is as dry as a bone, and licks up pools, streams, and reservoirs of water in a most wonderful manner, and is as greedy of moisture as the unpopular east wind of Eng-

land, coming withal in strong fits and gusts of passion, which soon rub the foliage of plants into a condition analogous to frostbite, and desiccate the ground to that degree that everything is either baked or converted into dust.

The reverse process takes place with the winds from the north-west. Here the air is intensely saturated with saline moisture, and long before the wind begins to blow in chilling blasts, the smell of the sea may be distinctly perceived, and a heavy fog is always its precursor.

The effect of these two winds upon the human system is striking and peculiar. Many who suffer from chronic rheumatism can tell hours beforehand when a south-easter may be expected, as they get twinges and touches of neuralgic pain. While the wind, however, is actually blowing they are free from uneasiness; the rapid evaporation from the surface of the skin relieves the lungs and kidneys; and though men and horses may perspire freely enough in shade, they are scarcely sensible of cutaneous action in the sun, and coughing is lessened in frequency. Not so with the Kloof wind. The damp, clammy, cold nature of a north-wester aggravates all chest complaints, and, by congesting mucous membranes, is particularly mischievous to children and old people, who ascribe to it croup, white sore-throat, diarrhœa, and allied disorders. Fortunately, during summer, it does not last very long, and, upon the whole, is not so very bad a visitor after all—at least for the doctors!

It is, however, in winter months that Cape Town

forms the most pleasant of residences for invalids. Being well sheltered by mountains, there is always plenty of calm, clear weather, and even in the stormiest season of the year, as in May, when the north-west gales are tossing enormous breakers against our iron-bound coast, and but for Breakwater works would be making wild havoc among the shipping of our bays, a night of destruction will be followed by perfectly heavenly weather, lasting, perhaps, for five or six days. During this period of exquisitely calm and temperate days, we are always blessed with Italian skies, and with air so cool, so soft, so dry, so grateful to the lungs, that it is a positive source of happiness to feel oneself to be alive. "No climate in the world," says Dr. Stovell, "could be more agreeable to the feelings—and very few more beneficial for the usual class of Indian invalids—than a Cape winter. There is an invigorating freshness about this season, equally delightful and beneficial; the moment the rain ceases the clouds rapidly clear away, and the sky remains bright for several days."

So, too, in the opinion of Bunbury, our scenery "has much of an Italian character, and is set off by a climate even superior to that of Italy." "Some of our party," he adds, "compared the environs of Cape Town to those of Florence;" and beautiful as is the scenery above Fiesole, it must be confessed that the views from the Kloof Road, above Cape Town, both in summer and winter, are only to be equalled by Bain's Kloof, near Wellington, and Montagu Pass, near George, and are all infinitely superior to Richmond Hill, or the glittering Firth of Forth, so dear to Scots.

In forming, however, an estimate of the character of the climate of the Cape, more particularly in relation to climates in Europe, "it must be borne in mind," says Dr. Stovell, in the *Bombay Medical Journal*, "that though its latitude is within 34° of the Equator, it has a mean annual temperature of places in much higher geographical parallels in the northern hemisphere. Its mean temperature, for instance, is that of Naples, in latitude 40° 5′ north. The same remark holds good of all places in the temperate zone of the southern hemisphere compared with the northern, so far as dependence can be placed on their thermometrical data. Hobart Town, for instance, in 42° 45′ south, has a mean annual temperature of 52° 5′; while Rome, in the same parallel in the northern hemisphere, has a mean temperature of 59° 8′."

In connection with this subject, in its bearings on the treatment and prevention of pulmonary disease, we herewith subjoin some of the tables compiled by Major Tulloch, to show how false an impression has been created in the minds of many—and even of medical men—as to the prevalence and fatal character of lung disease, owing to the sudden changes of sensible temperature and the violent gusts of wind to which Cape Town is exposed. In truth, the change is very slight, as marked by thermometer, the difference between the *real* heat and the heat *felt* being precisely similar to that between a person using a fan and one who does not. Certainly nothing can be more convincing than these tables, which give not only the principal diseases prevalent among white troops on the frontier of the Cape from 1822 to 1834,

inclusive, but also of the extent of the same class of disease among troops in Great Britain.

NATURE OF DISEASE.	ADMISSIONS.			DEATHS.		
	Cape Frontier.		United Kingdom.	Cape Frontier.		United Kingdom.
	Total among whole Force in 12 years.	Annual Ratio per 1,000 of mean strength.	Annual Ratio per 1,000 of mean strength.	Total among whole Force in 12 years.	Annual Ratio per 1,000 of mean strength.	Annual Ratio per 1,000 of mean strength.
Fevers	537	81	75	8	1·2	1·4
Eruptive fevers ..	2	..	3	..	..	0·1
Diseases of lungs ..	541	82	148	16	2·4	7·7
Diseases of liver ..	140	21	8	7	1·	0·4
Diseases of stomach and bowels	584	88	94	15	2·3	0·8
Epidemic cholera ..	..	..	4	..	..	1·2
Diseases of brain ..	65	10	6	4	0·6	0·7
Dropsies	10	2	1	3	0·5	0·3
Rheumatic affections	396	59	50	..	1·8	1·4
Venereal diseases ..	813	123	181	..		
Abscesses and ulcers	669	101	133	1		
Wounds and injuries	1,104	166	126	4		
Punished	168	25	8	..		
Diseases of eye ..	283	43	19	..		
Diseases of skin ..	65	10	29	..		
All other diseases ..	363	55	44	7		
Total	5,740	866	929	65	9·8	14·0

From this it will be seen that the Cape Frontier is not only more favourable to health than the United Kingdom, but that among a mixed body of men, all exposed to the *same* influences of dress, diet, exercise, and employment, the ratio of admission into hospital annually was relatively

as 866 to 929, and the deaths as 9·8 to 14·0. To what is this immunity and this difference to be attributed—for of eruptive fevers, cholera, and lung disease the ratio is highly instructive? Clearly to the *dryness* of the soil and air, and to habits of exercise, cleanliness, and enforced moderation in diet! That this is so can be shown by glancing over the next of Tulloch's tables, which deals with the *degree* of pulmonary disorder at the various military stations, and plainly shows how little the soldiers' lungs are affected at the Cape of Good Hope.

ATTACKED annually, per 1,000 of White Troops, at each of the following stations:

NATURE OF DISEASE.	Windward and Leeward Isles.	Jamaica.	Gibraltar.	Malta.	Ionian Isles.	Bermuda.	Canada.	Nova Scotia and New Brunswick.	Cape District.
Diseases of lung, generally	115	18	141	120	90	126	148	125	98
Inflammation of lungs and pleurisy	23	14	42	34	32	37	43	35	30
Phthisis pulmonalis ..	12	13	$6\frac{5}{10}$	6	5	$8\frac{8}{10}$	$6\frac{5}{10}$	7	$5\frac{5}{10}$
Catarrh, acute and chronic	75	55	86	74	49	74	89	73	58
Deaths annually, per 1,000 of the strength, from all diseases of the lung, at same stations	$10\frac{4}{10}$	$7\frac{5}{10}$	$5\frac{3}{10}$	6	$4\frac{8}{10}$	$8\frac{7}{10}$	$6\frac{7}{10}$	$7\frac{1}{10}$	$3\frac{9}{10}$

It may be urged against these tables that soldiers are in a certain sense picked men, because they are surgically examined at recruiting depôts before entering on service;

but when we consider how large and varied a body of men are thus drawn from every class in the community, it is certainly surprising how little they seem to suffer from *organic* mischief, in spite of hardships and exposure. The same objection cannot, however, be urged against the civil patients admitted into the Somerset Hospital in Cape Town during a period of five years; for most of them were either sailors, or half-castes, representing nearly every variety of human breed. By the ready courtesy of Dr. Laing, the writer of this paper has been allowed to look at the books of this General Infirmary; from which it would appear that, out of 2,722 patients sent there for treatment of all types of disease, not more than 84 have died of lung complications in five years.

Year.	Admissions.	Phthisis.	Pneumonia.	Bronchitis.	All other Diseases of Lung.	Total of Deaths.
1861	673	14	4	6	0	24
1862	664	13	1	1	1	16
1863	505	12	2	0	1	15
1864	421	12	0	1	0	13
1865	459	11	3	1	1	16
	2,722	62	10	9	3	84

And a further analysis of this return would not only reveal the extent to which patients have been permitted the privilege of being sent by their friends to the Hospital, for the mere purpose, as it were, of dying, and being buried at Government expense, but would clearly establish the cheering fact that, *cæteris paribus*, severe cases of consumption are not *very* common amongst the members of our very mixed community.

Of the 14 deaths from *Phthisis* in 1861, 4 died within 2 days of admission.
„ 13· „ „ 1862, 7 „ 10 „
„ 12 „ „ 1863, 8 „ 15 „
„ 12 „ „ 1864, 4 „ 10 „

On the whole, more deaths from diseases of the lung have occurred in February and October (which are respectively our most trying months), than during June, August, and September (which are the most conducive to exercise and open-air enjoyment). The subjoined table shows this.

A RETURN of the *Admissions* into Somerset Hospital for all classes and Paupers, suffering from *every type* of *Lung Disease* during five years, irrespective of age, sex, or colour; also of the *Deaths* in same time.

MONTH.	1861.		1862.		1863.		1864.		1865.		Total of Deaths in 5 years.
	Admission.	Death.	Admission.	Death.	Admission.	Death.	Admission.	Death.	Admission.	Death.	
January ..	92	2	69	3	54	.	53	1	33	.	6 in January
February ..	62	4	56	.	40	2	45	2	35	1	9 in February
March ..	34	2	60	2	56	2	28	1	29	.	7 in March
April ..	51	3	56	2	64	1	22	2	35	.	8 in April
May	46	.	49	2	32	4	22	.	39	1	7 in May
June	49	.	38	.	41	1	20	.	50	4	5 in June
July	58	3	36	1	33	1	28	.	40	2	7 in July
August ..	50	2	55	2	37	1	34	.	34	1	6 in August
September	53	2	54	1	30	1	40	.	51	1	5 in September
October ..	66	2	69	1	32	.	46	3	32	4	10 in October
November	53	3	51	1	34	1	41	3	41	.	8 in November
December ..	59	1	71	1	52	1	42	1	40	2	6 in December
	..	24	..	16	..	15	..	13	..	16	84

Among the convicts and prisoners, broken-down constitutions are comparatively rare ; nor does the seclusion of gaol life seem to shorten the span of existence. At the General Infirmary for lunatics, lepers, and chronic sick on Robben Island, but few deaths are ever recorded as due to phthisis ; and indeed, in other respects, the ratio of mortality there is so very low as to seriously detract from its public usefulness, and be a perennial source of inconvenience to a paternal Government who have to provide space for fresh applicants every year !

If such, then, is the result of careful observation of the effects of the climate about Cape Town and its immediate neighbourhood, a much lower rate of mortality is actually found to obtain in the villages situated along the main road leading to Simon's Bay, where [from the fact of so many people residing in them, who could not comfortably exist or maintain their health in Cape Town] a very large proportion of the inhabitants are in delicate health, and need the most careful medical supervision. In fact, one of the great advantages of coming to the Cape is, that while in winter you may have lovely weather, beautiful scenery, and first-class professional attendance at all the principal towns, &c., you can also derive the greatest benefit in summer by choosing a place of residence along the well-wooded line of road extending from the fourth milestone, or Mowbray, to the seventeenth milestone, *i.e.*, the fishing village of Kalk Bay ; and this without severing any of the social ties, or breaking up of households, which usually accompany a change of climate.

From what has gone before, it must not be imagined,

however, that there is no such thing as consumption at the Cape! Unfortunately, there is a great deal of scrofula, particularly among the native Dutch and Malays, due, no doubt, to rheumatic and gouty parents, and to the frequent intermarriages, for the sake of keeping property in families. It is well known that dyspepsia and the indigestion of weak stomachs are in many instances hereditary in their source; and when it is considered how many invalids have married and settled at the Cape, it is much to be wondered at that their offspring are, in the main, so free of European disorders. Then, too, the fasting and religious customs of the coloured or Mohammedan population, combined with overcrowded rooms and a meagre diet of fish and rice and greasy ragouts, are by no means conducive to perfect assimilation of food, to soundness of lung, or to support of vital necessities. Thus the distaste for stimulants enjoined by the Koran, the frequent fasts, the crowded lodgings, and the poor diet are all very decided drawbacks to the maintenance of robust health among the mixed and coloured Malay races; and yet, for all that, these people, in the main, are free from diseases of debility, and if they are at all affected with tubercle are more liable to show it in the skin and liver than in the lungs or digestive organs; that is to say, they are more exposed to the dangers of leprosy and of dropsy than to disorganization of the respiratory apparatus.

Our climate, then, is favourable to longevity of life, by indisposing us to excessive physical exertion; and by promoting a very free action of the skin, it relieves us of many of the ills to which human flesh is heir, when

exposed to the *humid* heat of the tropics or the *humid* cold of insular regions, like Great Britain and Ireland. While lacking the nervous energy, the courage, and the mental vigour which spring from a residence in cold and bracing latitudes, the colonists of the Cape are, as a class, thanks to their climate, very Oriental in their tastes, and but slightly disposed to deeds of violence or of crime. Their love of pleasure is subordinate to their love of ease; and hence it is mainly due to the softening and Capuan influences of our climate and fruitful soil that we are so indisposed to earn our bread by the sweat of the brow, or do our duty by a land which so loudly calls for development.

This hatred of labour extends to all classes. The "*dolce far niente*" is far too complacently indulged in by every section of the community; and we are in danger of expecting rivers to flow, and crops to grow, without sowing or ploughing, while oblivious of the fact that upon every land there is always a curse where man forgets to labour and toil. Of course it is held to be the fault of the climate. Equally, of course, it is the fault of our old slave antecedents that we are taking so little out of the soil, and putting so very, very little of Anglo-Saxon industry into it. Could we but succeed in inducing wealthy Englishmen to immigrate hither, and sink some of their superabundant capital in our neglected Colony, how might we not look forward hopefully to a future which would allow us to do justice to ourselves, and even in some degree *to improve the climate also!*

In its relation to the maintenance of health it has here been attempted to be shown that our climate is admira-

bly adapted to out-of-door pursuits. The heat is never excessive enough to be absolutely relaxing or debilitating, as in India, nor is there moisture enough to induce endemic fevers of any type. In its relation to disease, we have the high authority of Sir Ranald Martin for saying that "torpor of the hepatic functions under the cold and damp of an English climate would seem, *prima facie* and naturally, to follow on the former frequent disturbance and general over-excitement of that function under tropical heat; and so we find it in fact." Not so at the Cape! Here we have earned a very fair reputation for restoring healthy action to the livers of used-up Anglo-Indian officers by very simple agencies. Mere change from a very hot climate to the cool, well-wooded slopes of Wynberg and Newlands would not suffice to restore digestion did we not also put a stop to the dangerously fast life previously led by our sick visitors. In India and China it is quite certain that diseases of the liver are frequent, not, as is sometimes gravely asserted in medical prints, "because that organ has to put on increased action in order to do the work of the lungs *as a decarbonizing agent*," but because the old school of European residents do habitually commit frightful excesses in the matter of heavy and highly-spiced dinners, and import from England manners and customs which, however suited to their mother land, are quite inapplicable to the tropics. Staff-Surgeon Gordon boldly asserts from his own experience there—"that the heavy breakfasts, hot tiffins, rich dinners, and grilled bones at supper, produce more cases of dyspepsia, fever, and dysentery than all the beer or brandy-and-water, against which we hear so much at home; and that it is

not from either of the latter only that so many invalids are annually sent away to the hills, to the Cape, and to England; but it is more frequently to the late hours, gambling, and other species of debauchery, that rheumatic affections and worn-out constitutions may be traced." This tirade of the worthy doctor could also be applied to the good people of Dorset, who are said to feel no difficulty, between sunrise and midnight, in disposing of their seven meals,—viz., their dewbit, breakfast, nuncheon, crunsheon, mammet, crammet, and supper!

Be this as it may, since two years' leave to visit England, on furlough, has been permitted to the Indian officers, the Cape has gone out of fashion with them. Yet, in the opinion of Sir R. Martin, the *sudden* change from extreme heat to extreme cold, through the overland route, has been highly injurious to both the military and civilian services, by inducing torpidity of the liver; and relapses in England from hepatic affections, as well as from dysentery and other allied diseases, are proverbially common. This is a matter well worthy of consideration. Nor must we underrate the importance of a long sea voyage in setting up many men who are suffering from functional disease of the stomach and bowels, and in weaning "*bon vivants*" from the pleasures of the table. The sea air and freedom from mental toil gradually restore tone to overtasked brains and livers, and by the time they are landed in Table Bay they are in a capital position to avail themselves of the benefit to be derived from healthy exercise and judicious attention to regimen in a dry, cool, temperate climate. For a long time the baths at the Paarl, Stellenbosch, Malmesbury, and Caledon

had quite a reputation for improving the digestion of these heroic gourmands; but it is quite possible that *horse exercise and vigorous dancing* had a great deal to do in paving the way that leads up to complete recovery. And inasmuch as it will readily be admitted that the temperature produced by *latitude* is of unspeakably greater value than a similar temperature produced by *elevation*, it is quite open to medical proof that visceral disease may without hesitation be sent to a place like the Cape, the temperature of which is caused by *distance* from the Equator, rather than to places which owe their coolness to *elevation*, as at Simla. Though nothing is so good for the jaundiced and dyspeptic as abundance of open-air exercise, especially on horseback, combined with freedom from official cares or private worries—much cheerful society, light meals, and cool, unbroken rest at night; though, indeed, the Hill Stations of India are admirably adapted to the *convenience* of men on short leave; yet the gaiety of the life led, the forced separation of the married ladies from their husbands by duties in the plains, and the lax morality produced among the invalided by the idleness which is suddenly thrust upon them—all tend to make a small "*imperium in imperio*," but do not serve to promote the peace or happiness of families thus disunited, and of necessity forced to break up their household, when they move to the hills. These hills, again, are practically denied to the rest of the world. Their distance is too great to tempt any but Indians to try them, and thus a large number of patients suffering from hepatic disorder are debarred from the relief which greater accessibility might otherwise have yielded.

Far different is the case of the Cape. Here upon the

highway of the seas, we occupy the position of half-way house, and should be ready at all times to extend our help to those whose cases are suited to the peculiar *dry* and temperate nature of its climate. The best period for arrival is towards the end of August. A long sea voyage *by sailing vessel* is an admirable introduction to the lovely scenes which September at the Cape yearly produces. The fields are then covered with verdure; the hills and plains are brilliant with patches of bulbs and heather in full bloom; and all nature is gay with the surpassing freshness and variety of spring. The air is then truly intoxicating; while the purity and transparency of the atmosphere is such as literally to stagger the minds of many who have only been accustomed to judge of distances through the medium of haze, and cannot be brought to realize the fact that mountains fifty miles away are as plainly visible as if within half an hour's walk, and to the naked eye as minutely traceable as by aid of telescope.

Owing, however, to a variety of causes, over which the Colony has had no control, Anglo-Indians visit us no more. The trade of the place is decaying, and we seem in danger of being utterly extinguished unless we can induce the local residents to grow upon the spot all the articles of necessity, which at present we are procuring from Europe, and confine our consumption of luxuries to articles of native growth. To do this effectually we require more water and more capital. The one hangs upon the other, and it is almost impossible to estimate the social, physical, and commercial advantages which would be essentially the outcome of joining the two.

It is with a view, therefore, of directing strong public attention to these matters that we have been induced to enlarge at some length upon the local peculiarities of our climate and soil. From a comparison with other countries we have no reason to shrink; and we ought to be firmly convinced that we can grow almost anything we have a mind to, could we only secure the priceless boon of steady supplies of water, and the employment of capital on remunerative works like railways, &c.

The very dryness of our climate is the cause at once of all our woes and our wants. The periodical and long-continued droughts have made all agricultural speculations a mere matter of reliance on St. Swithin; while the gradual denudation of the soil by bush fires, and careless cutting down of trees, has intensified the action of the sun and the desert winds. The greater part of our colonial land is glazed with baked clay, from which the water runs off as fast as it falls. There is nothing to retain moisture and allow of slow filtration, and except in the neighbourhood of the Knysna and George forests, and the few miles of territory that are moderately well wooded, there is really no certainty as to water supply.

It has been suggested that dams should be erected wherever there are conveniences for such expensive and dangerous structures; but a cheaper and more feasible plan for extending our water supply would be to plant quick-growing trees on all Crown lands, with a view not only to attract the rain-clouds but to check rapid evaporation from the soil after the rains have fallen. For this purpose we do not require magnificent forests of timber; but it should be the duty of every Civil Commissioner to

encourage, by all the means in his power, the extensive planting and sowing of all such hardy and bright-leaved shrubs and trees as experience has shown us to be well adapted to dry and windy, as well as to cold and exposed situations. Such is the character of most of our Crown lands at present, and it should be an unceasing object with all of us to get rid of the rhenoster bush, and replace it with hackea, golden willow, elm, Spanish chesnut, oaks, mulberries, sycamores, plane trees, firs, larches, pines, proteas, myrtles, and the very large class of strong-foliaged trees which Mr. McGibbon and Dr. Brown are prepared to supply or to recommend. Our predecessors, the Dutch, were fully alive to this; and by their regular planting of such rocky places as the base of Table Mountain, convincingly proved that fir, poplar, and oak would grow wherever they could get shelter. Wherever pomegranates and mulberries will grow, there, too, oaks will thrive, as at Wellington and Stellenbosch; and had it not been for their systematic planting we should indeed, ere now, have been in very sad straits. There is a tree, however, which is very destructive to gardens, *and exhaustive of moisture*, and which we would do well to get rid of, viz., the blue gum. Owing to the spiral arrangement of its fibres, it makes very poor timber, and is very troublesome to chop up or work in any form. The golden willow, and the acacia lancifolia, and the hakea are highly spoken of by the Conservator of the Cape Flats, as growing quickly and strongly in plantations exposed to wind. They deserve *extensive* trials.

Most of the plants here mentioned are easily raised from seed. Stone pines and acorns are within the

reach of all, and if the farmers in the dead season of the year would roughly prepare the ground for their reception by digging shallow trenches in long lines on such parts of their land as are not fit for the plough, they could easily drop the seed at the approach of the rains, and within five years have abundant spars forthcoming for fences and sheds, &c. Even such unpromising hill sides as the slopes of the Lion's Hill are now well wooded with firs; and we believe that what the farmer could thus do for the improvement of his own beggarly acres, the ordinary tramps and vagabonds on short sentences *should be made* to do for the neglected and bare lands of the Crown in every Division, instead of pottering about the roads and spoiling good tools. Bush fires should be rigidly punished, and this not by mere empty legislation, but by penal Act, forbidding any man from setting fire to *his own* veldt, even, without first giving notice to all his immediate neighbours, who would thus be warned and prepared, and take every precaution to restrict the ravages of fire. By setting about this matter *at once* we might *in ten years* do as much real good to the waste lands of this Colony, as we have been promising ourselves for the last century we were going to do for the progress of civilization. Unlike Tennyson's Northern Farmer, we are not beginning even to "stub our Thornaby wastes," and in the meantime a large section of the Colony is getting more and more arid, instead of being made to add to the general moisture by growing the brushwood and forests, out of which alone water can be gathered together and stored.

Under the shelter of these woods and forests it is

reasonable to expect that small game will once more breed in abundance, and that rude plenty will again reign throughout the land. The huge tracts now almost denuded of covering, and frizzled either into sand or brick by the strong rays of the sun, will once more bloom afresh with native flowers, and by gradual growth of thick brushwood add to the restoration of humidity. Through their agency the hard ground would be cracked and split by vigorous roots. The surface water would slowly sink into the whilom parched and thirsty soil, and feed the secret springs and underground fountains. The present rapid evaporation will thus be checked, and some actual impetus given to the physical formation and discharge of rain-clouds.

For it is an undoubted fact in physics that as the normal temperature of any portion of the Earth's crust is sensibly reduced, the amount and frequency of the rainfall is sensibly increased. Thus in France and England it is quite notorious that the climate has been perceptibly made hotter and dryer since the system of extensive sub-drainage of the soil and the towns has come into full force ; while the unceasing cutting down of trees in Norway and America has sensibly altered much of the previous icy character of their winters, and made the climate more genial. Much of the difference between the Scotch and Irish character is clearly traceable to the climatic influences, reacting upon differences of diet, extent of arable soil, and the necessities of muscular toil in the teeth of constant rain or ever humid winds. So, too, with us ; we can scarcely hope for conservatism of wealth and sound public opinion unless we brace our-

selves up to the duties and privileges of public life, and take a tight grasp of the principles which lie at the root of all national well-doing. To do this effectually, we need a climate that shall be less relaxing from its constant heat and dryness. *At present we have no seasons.* We *are always living at high nervous pressure*, and know nothing of the vital benefits of alternations of heat and cold, autumn and spring, in the steady maintenance of health. Our national character demands that we should throw off the fatal drowsiness and sleepiness that are creeping over us, and awake to the fact that without a winter, summer has no charm; without labour, pleasure is no gain; without rain we are but sapless and useless. Our climate *requires to be altered and rendered more humid;* the crops demand it; the staple of our wool is growing shorter and more brittle for want of it; our children are getting daily more and more like savages in their love of ease and sleep; and unless we do something towards planting extensively the waste lands of the Cape Colony we shall soon cease to be able to do anything with the parts now under cultivation, for want of water.

With a moderate supply of water, or even a heavy dew-fall, we can produce everything we require; without it, we are but fooling away our money by building bridges; for unless we plant forests so as to interpose a medium between the earth and the sky, how can we be surprised if the rain runs off as fast as it falls, and literally streaming unchecked from the mountain sides, smashes all our dams, and piles up the agony both above and below our much-belauded bridges? The interposition of brushwood, forests, and growing crops is all that is

wanted to give our climate a chance of self-improvement. The sooner we start them the better. The sooner we divide our year into the four natural divisions, by works of the above character, the sooner shall we reap the benefits of an increased rain-fall. Since God has denied us snow-capped mountains and the additional 1,000 feet of altitude which would have made our rivers run in summer, and frozen them in winter; at least let us do something towards checking evaporation by shielding the soil and improving a climate which is still far from perfection. Year by year, we are growing dryer and less productive. Live-stock of all kinds is degenerating from the high standards first imported; while new blood is constantly required both in the animal and vegetable kingdom to keep up quality and pith. Just as the sugar cane has gradually been decaying in the Mauritius for want of new supplies and stronger species of the plant, so our vines and fruit trees generally have succumbed to the blighting breath of *oïdium* and drought—in themselves the direct outcome of worn-out land and neglect of scientific teaching.

OUR VILLAGE.

BRACKENBURY was my first independent charge. Between it and the rugged range of mountains which once formed the boundary of the Colony lies a fertile valley with the finest homesteads and the most hospitable farmers, the richest vineyards and the most execrable wines of the country. The village stands upon the banks of a river, which here exchanges the valley for the plain, through which it "wanders at its own sweet will" for a couple of miles, and then mingles its waters with the sea.

On my first visit, I was struck, as all must be, with the picturesque grandeur of the surrounding scenery. The village itself was but a wretched place. Its cottages were few and far between; so were its melancholy trees, whose feeble remnant of vitality showed itself in scanty tufts of verdure on their topmost branches. Its rectangular streets were well enough defined—on the diagram; but on the spot, not easily found, and, when found, not easily traversed. Deep gullies formed by winter floods; innumerable ditches dug in all directions for irrigation; pits, whence building materials had been excavated; treacherous pools, in whose fetid mire ducks and pigs luxuriated; reeking dung-heaps and abominations without end, greeted the stranger. I looked around as I entered the place,

and, in utter despair, dashing through gardens and leaping ditches, at length dismounted at the door of my kind host. This was a quarter of a century ago. During the five years which elapsed before I took up my abode there, things had somewhat changed for the better, and, with ordinary caution, a traveller might find his way to the one building in the centre of the village which deserved to be called a house.

Brackenbury had for years boasted a Church—as square and squat as only a genuine Dutchman could build. The funds raised by the sale of the village erven were not sufficient for its erection; the sum necessary for its completion had to be borrowed of Government, which, finding neither capital nor interest forthcoming, has, with paternal kindness, long since forgiven the debt. The minister was a Scotchman, kindhearted and eccentric; a poet, too, though few suspected it. It was his fate

> "To blush unseen,
> And waste his sweetness on the desert air."

In those days our village had no doctor and no disease, no lawyer and no litigation, no court and no crime. The modicum of law dispensed by a worthy justice of the peace, at three miles distance, sufficed for our peccadilloes. When our solitary shopkeeper wound up his affairs, after securing a competence, five pounds more than covered the amount of his bad debts. Once a week, some time between ten at night and two in the morning, a penny trumpet announced the arrival of Her Majesty's mail from the metropolis, and we, who were impatient for news, rushed up to the bedroom window of the sleepy, shivering postmaster, who yet was courteous

enough to indulge us with our letters at such untimely hours. As to the return mail from the Frontier, the astronomer predicts with as much accuracy the appearance of the most erratic comet that ever glared in the forehead of the evening sky as we could the day or hour of its arrival.

My charge comprised two congregations,—the one composed of the few English families of the neighbourhood ; the other comprising a considerable number of persons of colour, chiefly emancipated slaves, who had settled in the village, or were still residing with their former masters, whom they were loth to leave. It was among the latter class that I became acquainted with an individual whose disinterested attachment is worthy of record. He was a member of my church, a man of sincere piety and superior intelligence, "from his shoulders and upward, higher than any of the people." Some of the best blood of the Cape flowed in his veins, and he knew it. His whole bearing showed it. I had saluted on one occasion a gentleman of my acquaintance, when he remarked to me, "Sir, I am only old Ernest, but I am the son of that gentleman's father."

From his youth up to middle age he led a wild and dissolute life. A faultless *physique* and winning manners rendered him irresistible among the fair. He came, he saw, he conquered. Wordsworth's Peter Bell was a sad scamp ;

> "He had a dozen wedded wives."

My old friend was not quite such a reprobate.

> "The voice that breathed o'er Eden,
> That earliest wedding day,"

was not supposed to breathe the marriage blessing over men and maidens of his colour and caste. The slave was denied the blessing, and, of course, escaped the bonds, of holy matrimony. Let a gallant like Ernest break as many hearts as he pleased, he ran no risk of an indictment for bigamy.

He was an altered man when I knew him. Time had silvered his head, and slightly bowed his lithe and sinewy frame.

> "There was a hardness in his cheek,
> There was a hardness in his eye,
> As if the man had fixed his face,
> In many a solitary place,
> Against the wind and open sky."

His moral character had undergone a renovation. Years before, he put away the evil of his doings, began to lead a new life in all godliness and honesty, joined the church, and married a wife. The woman of his choice belonged to the dangerous class against which the proprietor of the Marquis of Granby so emphatically warned his son Samuel, but she made an excellent wife. She was skilful and honoured in a profession which made her the special *confidante* of all the ladies in the country side "who loved their lords." The worthy couple fixed their abode in a sequestered spot at the foot of the mountains, far from the haunts of men. A well-watered garden and orchard amply repaid the care bestowed upon them, and formed a perfect oasis amid surrounding barrenness. Their dwelling comprised two separate buildings,—one, a mere pondok, which served as a kitchen; and another, and more pretentious structure, the walls of which, formed of squared ant-heaps, did not exceed four feet in height, but,

covered with a wide and lofty roof, gave ample space within.

A visit once paid to my old friend in his mountain-home gave me a clearer insight into his character and habits than I had previously possessed. On the loftiest peak of the range of mountains lying at the back of our village, the Astronomer-Royal had a station when engaged in measuring an arc of the meridian. A pillar of stones marked the site, which some of us, full of energy and vigour, of which time has long since robbed us, resolved to visit. We made up a party,—a medley, merry party it was. There was a retired sea-captain, who has long since gained the desired haven; a Scotchman, whose vocation it was "to rear the tender thought," and who, true to his calling, never spared the rod; a thriving shop-keeper, who enjoys a well-earned competence, and still retains his juvenility; a hard-working tradesman, to whom at length the tide came, "which, taken at the turn, leads on to fortune," and whom I hope shortly to see in the Legislative Assembly; a wandering florist, with a merry twinkle of the eye, which showed him ever ready for fun and frolic; an honest Yorkshireman, and his friend, a stranger from the East, of whom we said, as we saw him approach, with a long leg dangling on each side of a most diminutive steed,

> "Who is this upon the pony,
> So long, so lean, so raw, so bony?"

There were eight of us, all mounted, and a cart-load of provisions drawn by oxen. To lessen the fatigue, we determined upon spending the night at the house of my friend Ernest, taking him for a guide, and starting early

the following morning. We reached the place at sunset, and found the larger tenement swept and garnished, with a homely bedstead in each corner of the room, prepared for our accommodation. Honest smiles assured us of a welcome. "The cheerfu' supper done," my companions retired to rest, while I joined the family for a quiet chat around the fire which blazed cheerily in the middle of the kitchen floor. After a time I also sought my quarters in the house already occupied. In the faint light, the figure of the old captain was just visible, sitting bolt upright on a chair in the centre of the apartment, his hands thrust deep into the vast pockets of an old pea-jacket, while the regular "nodding, nid, nid, nodding" of his dear grey head indicated that he had passed into the region of forgetfulness. Certain nasal sounds proceeding from each corner of the room, except the one reserved for my special use, satisfied me that the others slept, and invoking blessings, as fervent as those of Sancho Panza himself, upon the man who first invented sleep, I stretched my limbs upon the rude couch and resigned myself to slumberous repose. How long I had dozed I cannot tell, when I was aroused by a crash and a cry. The crash ceased, but not the cry. The attenuated candle had burnt out, and all was darkness. With some difficulty a light was procured, and then the mystery was readily enough explained. The demon of mischief had entered into one of the party, and prompted him to attach a *riem* to the leg of a crazy bedstead, which was wrenched out by a sudden jerk, while the others slept. The merry Gladiolus, who chanced to occupy the rickety couch in company with the juvenile Punjum, no sooner became

conscious of a catastrophe, than he seized his bed-fellow—as a dog does a pig—by the ear, and biting hard, in spite of piteous cries, rolled with his hapless victim upon the ground.

Once thoroughly aroused, we slept no more, though some tried to do so. My cloth did not exempt me from persecution. Hunted from place to place, I flattered myself that I had at last escaped my pursuers, and found a safe retreat among the bags and boxes of the commissariat cart. Alas! my quiet was not of long duration. Snugly ensconced as I was, my tormentors discovered me even there, and tilting the vehicle, rolled me out upon the ground amid its multifarious contents. Farewell now all thought of rest! We drank our coffee, saddled up, and long before the morning star shone above the mountain, we were away, with Ernest for our guide. When compelled to leave our horses, we clomb lustily for a time. Our indefatigable friend Gladiolus clambered high up the kloof and beckoned us on; but when the sun began to look down upon us, we soon wearied, saw "a lion in the way," and sounded a retreat. No wonder, after such a night of fun and merriment, that our expedition ended so ignominiously. The pillar still stands on the peak, and many a time I look up at all that is visible of it from our village, and think of the jovial company assembled that night in old Ernest's hut behind the Roodehoogte.

The excursion made me acquainted with him as a hardy mountaineer, a keen and expert sportsman, and an intelligent and cheerful companion. Many a ramble we had together in after days among these hills and on the sea-shore, and many a tale he told of the olden times of

slavery; many an incident related of the Blaauwberg fight and flight, in which he followed his master, who never drew rein until he had placed the mountains between himself and the red coats.

After a few pleasant years spent at Brackenbury, I was instructed to occupy a station beyond the Orange River, not far from the West Coast, and bade farewell with regret to friends of all classes, colours, and creeds, with whom I had lived on the most amicable terms. This is not the place to tell

> "Of most disastrous chances,
> Of moving accidents, by flood and field,"

encountered on a journey of seven weeks' duration. It will be enough to narrate briefly what befell me in that distant country, and called forth the noble and self-devoted conduct which has made the memory of old Ernest dear to me. I had not been long settled in my new abode, when the dreaded lung-sickness broke out among the oxen which had brought me from the Colony. The natives fled in dismay, with their flocks and herds, to the most distant parts of the country. My servants, and an old Hottentot whom poverty forbade to flee, were all that remained. Day after day we drove the diseased cattle into a mountain, and I shot them down. Wolves, jackals, vultures, dogs, roving Bushmen and Damaras battened and fattened upon the carcases. I was cut off from communication with the people for whose benefit I was undergoing voluntary exile, and was regarded by them with the most absurd and provoking suspicion. If I mounted my horse and rode a hundred miles or two in search of the wanderers, the very sight of me inspired

them with dread, and their cattle were hurried away to escape the glance of my eye.

From this remote station we could only dispatch a messenger every two months to the nearest post-office. When my situation became known in Brackenbury and elsewhere, it excited the deepest sympathy; but none knew how to aid me. Ernest kept all these things in his heart, and pondered over them. When the next letters brought confirmation of the tidings, he still pondered over them. At length he presented himself to my successor, and said, "Sir, I am going to Mynheer; I hear that he is in trouble, that all have forsaken him, and I am going to him." He was reminded of his age, of the distance, of the danger, of all that might serve to turn him from his purpose. "You cannot turn me, Sir," he said; "my wife is dead, and I am almost alone in the world; my minister is in trouble, and I must go to him." My worthy successor was an experienced traveller, who well knew the perils of such an undertaking, and set them before him in the strongest light. It was useless. He would only consent to delay until my wishes could be ascertained. I did my utmost to dissuade him, but he was bent upon coming, and he came.

With his gun and knapsack, and a cripple-boy as his companion, he started from Brackenbury, and trudged steadily on until he reached the Mission Station of Lily Fountain. On leaving that place, he had the perilous task before him of crossing on foot the arid and inhospitable plains of Bushmanland. In those "wilds, immeasurably spread," his provisions failed, and water was not to be found. The old man and boy must have perished had

they not encountered a party of Namaquas travelling in another direction, who allowed them to join their caravan, and with the greatest kindness shared with them their own scanty food. Weary and worn, the two travellers arrived at a station very far to the eastward of the one I occupied. Fatigue and privation brought on a severe attack of illness, from which the old man had but just recovered, when an opportunity occurred for him to proceed to my residence, but only by a circuitous route, which added two hundred weary miles to the six hundred he had already traversed on foot in the execution of his heroic purpose. Great was our joy when we met. My wife and children were delighted to see the old man's honest face once more. It was a satisfaction to feel that we were no longer alone in a strange land, and that, in my frequent absences from home, the dear ones would have one, at least, upon whom they could rely.

Upon the expiration of my term of service in that country, each of us resumed his former position at Brackenbury. Not many months had elapsed, when, late one evening, a lad came to my door, whose excess of grief deprived him of the power of articulate utterance. He came to convey the sorrowful tidings that his grandfather, my old friend, was drowned. He and the lad had gone to his usual fishing-ground, at some miles distance, and a huge wave, suddenly rolling in, swept him off the rock on which he stood. When the waters receded, the lad approached as near as he might, and thrust the long fishing-rod towards the drowning man. He made no effort to grasp it, but, with a wistful gaze fixed upon the child he loved, sank slowly down, and the remorseless

deep closed over his head. Day after day we waited, but the greedy sea never gave up her prey; nor will she, until the Archangel's trump shall sound. Then, under brighter skies, we shall meet again.

The Brackenbury of to-day is not the Brackenbury of twenty years ago. Thanks to the Village Nuisance Act, nearly half our streets are passable—in fine weather. Numbers of neat cottages and comfortable dwellings lie sweetly embosomed amid smiling gardens and luxuriant foliage. Our places of worship have increased in number and improved in appearance. The Dutch church, looking squarer and squatter than ever, has exchanged its thatched roof for one of slate, its unsightly old windows for more showy ones of the most extraordinary style. Our three clergymen, *mirabile dictu!* dwell together in unity.

"More bent to raise the wretched, than to rise"—

they meddle neither with polemics, politics, nor poetry. We have a court and prison, policemen and criminals; two medical men, with scores of patients; law-agents and endless litigation; a dozen shops, and people over head and ears in debt. We have ceased to tremble at the sight of a writ, and are on familiar terms with the Master. We have stood before Governors, and gazed with awe on the lawn sleeves of a Bishop. Each leading newspaper of the city has its correspondent, and whatever transpires "upstairs or downstairs, or in my lady's chamber," one of those ubiquitous bipeds, whose name was familiar to us in the nursery, is sure to scent it out and cackle it abroad. Our public meetings, as numerously attended and as distinguished for magnanimity of senti-

ment and magniloquence of speech as that of the immortal tailors of Tooley-street,—have they not been duly chronicled? Our hotels and canteens thrive; so does our Savings Bank. Concerts, lectures, and penny readings have had their day, and proved a great success. Cricket and croquet divide the attention of our Upper Ten. On a summer afternoon, our main street is as gay as a fashionable promenade of the city. Our daughters are lovely; eligibles are few; and Paterfamilias is decidedly of opinion that "Cœlebs in search of a wife" might go farther, and, after all, bitterly regret that he passed by OUR VILLAGE.

THE CONFESSION.

Do they think I am dying, mother? What did the
doctor say?
I saw him shake his head just now as he went away.
"Low fever" does he call it, and says that if I try
I shall soon get well again? But, mother, I'd rather die.

The earth is a weary place; why should I wish to stay?
Some, I suppose, are happy, but I have missed the way.
If I should live to be old, how should I drag through the
years?
My heart is all in the past, the future lies hidden by tears.

Only four months ago, I was as happy as girl could be,
The earth was full of delight, and all its best gifts were
for me; [my eyes,
But now its sunshine and beauty are pleasant no more to
I would rather sit in the dark, and hear naught but my
own sad sighs.

You know he loved me, mother, I had no secrets from you,
And I could have staked my life that he would be faithful
and true;
But now he loves me no more, or, perhaps, a fairer face
Hath pleased his fickle fancy, and another fills my place.

Four months ago to-night, we took our last walk in the wood ;
All the way home he was sad, and seemed in an absent mood ;
And when he came to the door he merely said "good-bye,"
But his face, as he touched my hand, I shall never forget till I die.

Oh, I know he loved me, mother, he never meant to deceive,
But, perhaps, he mistook himself,—I know not what to believe ;
When I think of that look so mournful, I feel if we met once more,
His silence would be forgotten, and all would be as before.

My heart is always aching, and at night I cannot sleep,
I remember all the past, and in silence lie and weep ;
And, touch my pulse, dear mother,—feel how fluttering and slow :
Can people live for long when their life has ebbed so low?

But I am not dying for love,—let that be never said ;
For should he hear a whisper of the truth when I am dead,
I think his generous heart would feel such bitter pain,
That he never would be able to feel happiness again.

But what is this they bring me? A letter! Mother, stay!
I know it is his writing; what is it he doth say?
My hands are trembling so, I can scarcely break the seal,
But my fate lies in this paper, or what it will reveal!

THE LETTER.

"I have tried to give you up, my love, but I have tried in vain,
And if we part for ever, you alone must break the chain;
I know that I shall love you while the life is in my heart,
Even if on reading this you shall say that we must part.

"When I wandered by your side, in your loving sweetness blest,
I knew that I was happy, and recked not of the rest;
Lost in the bliss of loving, I thought of naught beside,
Only dreaming of the far-off time when you should be my bride.

"But one woke me from my dream, said 'twas a foolish thing
For me to win a maiden's love who had no home to bring;
For six long years must pass ere I can claim a wife,
And how can I ask you to lose six years of your young life!

"I thought I had no right to mar your future lot for me,
And if I gave you up in time, you still might happy be;
I could not trust myself one word of this to say, [away.
For I knew the look in those soft eyes would drive resolve

"I thought it would be best for you we should not meet again,— [the pain.
With me had rested all the wrong,—with me should be
My heart sank down with grief, but I could suffer all alone,
And live my life all loveless since you could not be my own.

"But I heard that you were ill, my love, and a sudden hope arose, [suppose.
That, perhaps, you cared for me more than I had dared
Send me one word, I dare not plead, I try to think of you,
But I shall love you all my life, whatever you may do."

—Then the colour tinged her pallid cheek, and a smile lit up her eyes [surprise;
As she looked up at her mother with a sweet and glad
And, with white and trembling fingers, she wrote her answer straight, [wait."
"What is time to those who love? Be sure that I will

W. G.

Graham's Town.

THE STRUGGLE FOR EXISTENCE

IN

NATURE, AND ITS RELATION TO SPECULATIONS IN NATURAL THEOLOGY.

Some time ago I heard an able preacher and aspiring thinker attempt, in a lecture, to explain away on very bold grounds that dark page in Nature's teaching—the preying of animal upon animal. He endeavoured to show by the collation of certain facts and views in science, such as you hear from speculative clergymen, who know science only in the general way to be picked up from reviews and popular treatises, that we had no positive knowledge that pain was inflicted on animals when killed by beasts of prey, and that probably, indeed, there was no pain at all. However dissatisfied I was with his conclusions, I was glad of one thing, viz., that he considered that some further explanation must be advanced than the Paleyan one, that the bright side of natural life is the more prominent, and compensates for the dark side of apparent cruelty. He evidently recognized the fact in some form, that, to satisfactorily vindicate the character of the Creator, we must view the phenomena of cruelty, pain, and death on their own merits.

With his theory I desire not any controversy, for the simple reason that I think I would be wasting words in so doing. It is true, that until we can perform the feat of transmigration of soul, and have "shuffled off this mortal coil" for that of some victim, we can have no surer guide than the argument from analogy. But our common sense, or (to adopt the more dignified language of Dugald Stewart) the institutes of human belief, must lead us to infer that, where there are the nervous analogues of afferent and efferent nerves attached to nervous centres, such as we have ourselves, there must also exist pain and pleasurable sensations; and, even did we not know of such analogies, we must believe that wherever there are similar manifestations of life as in man, even

> "The poor beetle that we tread upon
> In corporal sufferance finds a pang as great
> As when a giant dies."

But, again let it be said, I was thankful for one thing, that the leaven of modern scientific speculation had so far infused itself into the lecturer's mind, that he took up the very bold position, that the views of Paley in the application of a principle of compensation to the economy of nature were no longer tenable.

It would be an interesting investigation to attempt to show how the celebrated hypothesis of Liebnitz,—that the selection by the Creator, from amongst the different plans of creation which might be supposed to be before Him, of the one which represented the maximum of good and the minimum of evil, and which thus met the necessities of the great question of the origin of evil—led to the compensation theory of Paley. It scarcely falls within

the province of this paper to enter upon the digression. It is, however, manifest that in considering the example of any beast of prey with remarkable adaptations, it would become a pressing and obtrusive question to bring its habits and propensities under the compass of the argument from design, whose foundation principle is *the good in the utilitarian sense*, since these adaptations are for the infliction of pain and death. No satisfactory explication could be advanced which rested solely on the phenomena of cruelty in the state of natural science knowledge in Paley's time. There was nothing more natural then than that the great apostle of utilitarianism in morals should bring what he could only resolve into physical evil under the protecting shadow of Liebnitz's hypothesis.

The misfortune is that the error has not ended with natural theology, for, accustomed as we are to take many lessons from Nature, it has made its way into other departments of knowledge. What is more common than to refer many of the difficulties of ethical and social science to a general doctrine of compensation? And, consequently, another example has been added to the not inconsiderable list of delusive "received hypotheses," which the history of science and philosophy furnishes, and which retard and deflect the onward progress of investigation.

Had Paley known what natural science has revealed in these late years, the compensation theory most probably would have never been advanced. Recent investigations into the polity of nature have discovered to us the grand fact that *all* created life is at war. Instead of the phenomena of cruelty and pain being partial, there is no

organism without its enemies. From the lowest forms of life to the highest, all are engaged in a deadly struggle. Everywhere there is a warfare, remorseless, uncompromising, impartial, in which the weak go to the wall. In nature the race is to the swift and the battle to the strong; and all enter the lists.

I cannot introduce the subject of the struggle for existence in the universal character and veritable prevalence of its nature in a better way than by citing the famous example of Darwin. The common red clover of England has its stamens and pistils so placed that it cannot fructify without the aid of the humble bee, for this insect, in visiting the flower for nectar, brings the pollen dust into contact with the stigma, and thus causes fertilization. Field mice are the natural enemies of the humble bee, for they destroy their nests and young in great numbers. Mr. Newman, who has made the subject his special study, calculates that "more than two thirds of them are thus destroyed all over England." Cats, again, are the implacable enemies of mice. Here, then, we have a chain of inter-dependence, beginning with the cat and ending with the red clover. If cats are abundant in any district, field mice will be few; and if field mice be few, humble bees will abound; and if these, again, are numerous, red clover will seed and multiply. Before knowing this chain, what more absurd question could be fancied than—"Do cats in any way affect the increase of red clover in England?"

Now, every link in the chain of this example is a particular case of the law of the struggle for existence; for we have manifested in each an inter-dependence of

two forms, in which the one struggles with the other. The warfare carried on by beasts of prey is more obvious, but not more real. We see the physical energies of the two classes of opponents more conspicuously brought into action in that section of animal life. Yet if we look closely into the matter, we shall perceive that even in the individual example of the clover, the only instance in our chain in which a struggle is not at first apparent, there is a struggle going on in its individual life as a plant, and in its associated life as a member of the chain. It must assert its existence in spite of competitors, rigours of climate, and harshness of soil. It especially favours limestone localities; but it has not always them to revel in, and even when it has, it must contend with the other plants which select a limestone habitat. But, moreover, as a member of the chain it must contend with individuals of its own species in setting forth conspicuous flowers and a vigorous growth to attract bees, for by many experiments it has been discovered that they follow sight rather than smell. If we further consider that its reproduction and extension depend upon these insects, the reality and importance of the life struggle of the red clover must be sufficiently evident.

Our knowledge of the polity of Nature is yet in its infancy. But as far as has been ascertained, no organism stands alone. From the lowest forms of vegetable life, such as the Red Snow Alga, whose whole structure consists of one cell, by which all the functions of life and reproduction are performed, to the highest and most complex animal—Man, himself—all have a warfare of life. It is an easy task to multiply examples from all sections of natural

history. Almost all orchids exclusively depend on insects for fertilization and reproduction. Divicous or bisexual plants, as some willows, must depend on contiguity, wind, and insects to carry the pollen from the male to the female flower. Indeed, from recent investigations of Darwin's, it would appear that plants cannot be continuously fertilized by their own pollen, and that the agency of insects is needed to bring the pollen of one individual of the same species to another, and even from close allies, to perpetuate the vigour of plants and preserve them from decay. Wonderful to relate, as an illustration of the latter, the primrose and cowslip of England, considered generally among practical botanists to be distinct species, have been proved by this great naturalist to be complementary and sexual, the stamens of the one producing pollen, which, when applied to its own pistils, has no effect, but when applied to those of the other causes fertilization.

The whole animal kingdom abounds in variously modified manifestations of the struggle for life. Parasitic animals, intestinal worms, and skin diseases are extensive illustrations of such a contest. But parasites, entozoa, acari, &c., and even beasts of prey, scarcely reveal such an amount and intensity of life struggle and warfare as we find on examining the relations of animals to each other which belong to the same genera. In nature, the competition which exists amongst animals which have the same habits, eat the same food, and have common enemies, reveals a larger and more remorseless struggle for life, to my mind. Let one species of animal from any cause, such as usually determines multiplicity and vigour, obtain the ascendancy over another rival species,

and the results will be disastrous to the latter if the same conditions of life continue. In Scotland, the increase of the missel thrush has caused great decrease of the song thrush. I remember starlings in the West of Scotland as very scarce; they are now to be seen in great numbers. But while that bird has increased, the lark, prince of song birds, has been gradually decreasing in these districts. The starling is a stronger competitor for the same food; and in winter it carries on a vigorous warfare against the lark, and in summer destroys its callow young. The hare and rabbit of the Germanic Province, two species so closely allied in their structure and affinities that their hybrids are the only fully accredited examples among quadrupeds which are fertile, having reproduced now, in the hands of an experimenter, to some fifteen generations,—these animals are so thoroughly competitors that where the latter is abundant the former is exceedingly rare.

South Africa must have been throughout the present geological age one vast arena of struggling for life. It has all the characteristics of such a region, for there are only a few genera and families, comparatively speaking, but a vast number of individuals and species. The same kinds of food will have been sought by many animals. Let anyone, be he naturalist or not, observe for the matter of a year what occurs on one of our farms, and he will find an amazing *rôle* of pain, competition, death, and waste. Locusts, locust birds, spiders of every habit and variety of cunning, ants, hawks, various kinds of game, civilization, and sheep everywhere contending with each other, and ultimately with vegetable life.

Our knowledge of changes is necessarily extended over

a limited space in comparison with the time required for the fulfilment of the slow processes of nature; but the disappearance of species which flourished in particular regions, from which they have only lately (geologically speaking) vanished, can be only explained on this view. There is, however, one class of facts which places the whole subject of the struggle for existence in an incontrovertible and conspicuous light, viz., *the vast disproportion the actual numbers of plants and animals bear to their reproductive energies.*

When we are brought to consider the great waste of animal and vegetable energy in producing seeds, eggs, and live young, which become meagrely represented by the actual numbers that reach maturity, we cannot but be appalled at the terrible waste and destruction of life, and the extraordinary struggle for life the survivors must undergo. Even in the case of one of the slowest breeding animals, if a geometrical series be summed for a time representing their average natural term of life, a result would be obtained which, multiplied again by the number of individuals of the species known to exist, would produce an unwieldy total. But if we consider certain organisms, as, for instance, from marine life, the matter becomes almost incomprehensible. A species of cuttle-fish lays eggs which should produce 40,000 young squids every season. Calculate, if you can, the number to which they would amount if allowed to live unmolested during a period of ten years!

Graminivorous animals, as a rule, are prolific, and some species occur in vast numbers, as, for example, the antelopes of South Africa. If no destruction were

carried on amongst them they would cover the plains in millions. Now, decimated in the onward course of civilization by man, and unable to compete with the merino sheep, they are vanishing as before the march of a plague. Carnivorous animals appear, on the first look of the subject, to have the best of it, yet how rare they are in comparison with their different species of prey, although, in general, they are vastly more prolific? Their struggle through life, in competition and otherwise, must therefore be much more severe in reality.

As a final example, let us consider a case in detail. I shall take it from the vegetable kingdom, as affording the less evident display of the law. One of the commonest English orchids is the *Orchis maculata*. Darwin has enumerated the seeds of a single plant, and found them to amount to 186,300. An acre of land would contain this number planted very closely together. Now, if none of these proved abortive, the grandchildren would cover a space slightly exceeding the area of the island of Anglesea; *and the great grandchildren of a single plant, on the same conditions, would clothe with one uniform carpet the entire surface of the land throughout the globe!* Yet, notwithstanding this exceeding fruitfulness, the plant is by no means plentiful, for, to obtain a dozen specimens, even in moist localities, which they particularly affect, would necessitate some considerable search.

It may be at this stage very justly asked,—Since we have this incessant warfare going on amongst all organisms, animal and vegetable, how does it not involve ultimate extermination? There surely must be some limit to this destructive and uncompromising contest and competition.

The very conditions of life are in jeopardy in the struggle for existence; death follows everywhere in its wake. Every stage of life, but especially at the threshold of its career, every cellular movement and every function of existence work under the incubus of this law. Soil and climate, disease and weakness, habit and instinct, growth and vigour minister to this grim taskmaster of all created life. What, then, stems the destroyer's course?

It has been already hinted that side by side with this struggle for existence,—nay, involved in it,—there is an inter-dependence of forms in nature. Perhaps it would have been better to have named the law—the mutual acting and reacting relations among plants and animals. Darwin's expression is, however, likely to be preserved, through the widespread popularity of "The Origin of Species;" and, moreover, it possesses this advantage, that it exhibits the phenomenal complexion of the law. Be, however, the name what it may, the simple truth is this: When we use the expression inter-dependence, or mutual acting and reacting relations of organisms, we put the matter *subjectively;* the struggle for existence is its objective representation. In short, the mutual relations of plants and animals in the polity of Nature cause a struggle for existence; and this struggle is altogether regulated and subordinated to these relations.

It has been usual to speak of a balance of power in the opposing forces of Nature, and, provisionally, we use the expression in our argument, as on the whole applicable, premising, however, that the term "balance" is, properly speaking, statical, not kinetic.

Now, we shall see that this struggle for existence causes

a balance of opposing forms of life, for it determines the limits of extension beyond which organisms of every kind may not pass; and thus it fixes the very conditions and laws of life. For should, for example, any class of carnivorous animals continue to multiply, while their prey remains an invariable quantity, starvation would be necessarily the result, and would bring them back to proper limits. In the case of competitors, should one set get any decided advantage over another, they will progress and continue to extend until the other is exterminated; and without competitors the former must multiply till the destructive powers of numbers come into action and fix their limits. We have, therefore, in any province or region of natural life, by the action of this law of the struggle for existence in the various combinations of organisms, an equilibrium of numbers and organic energies which ever tends to remain, for all depend upon each other.

The true force of the struggle for existence in limiting extension and preserving that condition of inter-dependence which gives every individual his place, is seen in a very strong light when we consider certain examples of organisms which have invaded other regions from their own proper native ones. The English clover, which, as we have seen, admits only of limited extension in England, has been introduced into New Zealand, and there threatens extermination to the indigenous herbaceous flora. Rid of its proper competitors and adequate enemies, it carries annihilation with it to native vegetable life as effectively as the Anglo-Saxon race has to the Maories. The water weed, *Udora Canadensis*, a North American plant, suddenly appeared in English streams and canals a few

years ago, where it now flourishes to an extent unknown in its native province. It has become in the Cam* and other streams a perfect pest, impeding navigation, and choking the natural run of the water. The *Xanthium spinosum* in our own Colony is another instance.

Amongst animals many examples may be advanced. Let one or two, however, suffice. The vine-farmers of France waged a war of extermination against all birds frequenting their vineyards, and they have been most terribly successful in extirpating these destroyers of grapes. But the *natural* food of birds—grubs, caterpillars, flies, and all manner of insect vermin—has, on this account, unchecked by the struggle for existence, multiplied in myriads, and carried destruction and disease everywhere. This ignorant, short-sighted policy is now being speedily neutralized by every possible means of acclimatization and fostering care for the purpose of restoring the balance of natural life which formerly existed. The New Zealand horsefly is rapidly disappearing before the now acclimatized English species. The American continent had, in a previous geological age, a species of horse, but, as is well known, the present feral American horses were introduced from Spain, and have multiplied in numbers to an extent unprecedented in the history of acclimatization. Yet, as in the tsetse region of Africa, no wild horses are to be seen in Paraguay, where a fly, which lays its eggs in the navels of the newly-born foals, and thereby causes death, abounds in vast numbers.

* Cambridge men of late date will remember this plant by their nickname *Babingtonia pestifera*, named so, I suppose, by some angry member of a boating club, in honour of Professor Babington, who, he supposed, had brought it to the Cam in botanical zeal.

These examples must sufficiently show that in every natural province of organic life every member has a particular function, and that all are so correlated the one to the other, that the place and power of all are kept constant and invariable. *Natural* province of organic life, we have said, because man everywhere is a disturbing agent, introducing and destroying as he lists, and therefore even modifying the combinations of organisms, and paralyzing the balance of Nature, wherever he goes. Consider what such interference has done for some districts of South Africa. In the feral state they were covered with grass and a meagre sprinkling of bushes. On the introduction of sheep the grass was attacked principally, and yielded, giving the bush the ascendancy. A bush *veldt* followed, which the sheep, in course of time, had ultimately to fall back upon ; but it, too, is vanishing rapidly, especially on over-stocked farms. One bush, however, eschewed by the flocks, except in circumstances of dire necessity, is spared, and has perceptibly been gaining ground, and now on a *vley* upon which I look as I write I find scarcely aught else,—a vley which at one time was covered with beautiful and luxuriant grass. The bitter bush, as it is popularly called, principally the species *Chrysocoma tenuifolia*, has many properties favourable to a course of ascendancy and conquest. For example, it is very hardy, and can stand against long and persistent droughts, and it is, moreover, a member of an order *(Compositæ)* and tribe *(Senecionidæ)* wonderfully adapted for extension by fruitfulness and appliances for scattering seed. The time will, therefore, come when this plant must be the ultimate resource of the sheep. What may

follow after it is trampled down in these districts I cannot speculate; probably some species of plants which grow at present with impunity.

But, as I have said, in a province of plants, as fixed by Nature, the tendency is for the combinations in possession to remain unchanged; and, singularly enough, as it appears on the first look of the phenomena, the struggle for existence is the grand agent of Nature in this work. By it peace comes out of incessant warfare; order out of the grappling of foe with foe. It carries on a work of decimation, but, in so doing, preserves the remnant that inherit the earth. This struggle for existence cuts off every worthless form from Nature, and so keeps created life in perfection. It has been said that Nature of herself has nothing imperfect, maimed, and worthlessly weak. Every organism, however slightly impaired, must, inevitably, by this law be overtaken and eradicated. In fine, the struggle for life is a scavenger to clear away disease; it is a conservator, for it prevents the entrance of deterioration; it is a bountiful provider, in that it stops undue extension and multiplicity, and, in so doing, gives the means of life to all.

A partial view of this law has been called physical evil! And sophistical explanations and apologies have been advanced by enthusiastic theologues in a system of dogmas and formularies, and ambitiously named Natural Theology. Can that be called physical evil which carries with it everywhere physical good? These men, in their ignorance and bigotry, have written a lie on the fair face of God's earth. It is to be said in their behalf, that science has but recently made known the universality of pain,

death, struggle, and lavish waste in nature. True; but has their spirit been one of humble progress and timid utterance? Men of science have again and again, notwithstanding Bridgewater Treatises, proclaimed the impossibility meanwhile of a Science of Natural Theology; and again and again has the stigma of impiety and infidelity been thrown back upon them. In the far future, as in a dream, I see a vision, when Natural Theology, reared on a purely scientific basis, and built up by the testimony of Nature's revelations, will raise its massive structure to meet the descending ladder of God's revealed truth. I can see a glimmering of this happy consummation in the dawning of a unity of plan in the natural and spiritual worlds,—a law of suffering and struggle in both, the "scholarship severe" to a higher and better life. In the wonderful subordination of the one to the other of death and life, pain and pleasure, sorrow and joy, suffering and conquering, which follow in the wake of this remorseless law of warfare and competition, I can see an adumbration of man's spiritual experience in following out that sublime law of Christianity,—"Work out your salvation with fear and trembling." At length, in another mood than that of the poet Tennyson, man may contemplate Nature—

> "Who trusted God was love indeed,
> And love creation's final law,
> Though Nature red in tooth and claw,
> With ravin shriek'd against his creed."

God *is* love. The hymn of praise which ascends from earth to Him is truly a *passion* hymn, but as it rises upwards it meets the glimmering beams of the dawning

light of truth, and vibrates into notes of gladness and victorious joy.

But who shall fathom the eternity of the Creator's purposes in the fore-ordination of the law of suffering and struggle? We may discover in its working some glimpse of the truth, that if there is a loss, there "is a gain to match." Still, however, will the thought rise in our minds, "What is the final cause?" From the beginning the earth has had the same *rôle* of pain, death, and waste. In every geological age, from the first dawnings of life, we find evidences of the dominion of the same great law. Man came, the last and culminating effort of creation, and still unsatisfied Nature continued her remorseless warfare, and he himself has become a participator in the great scheme.

Latterly, men's minds have been opening to a comprehension of the importance and place of culture, as the great good to be sought and followed. May it not be that they have caught a far-off glimpse of this high truth as the ultimate law of the higher life, as it is in the natural? Certain it is that the greatest modern teacher of culture was a deep-hearted lover of nature—the German Goethe.

And the goal of it all, in the inspired prescience of Paul, is thus expressed: "For we know that the whole creation groaneth and travaileth in pain together until now. And not only they, but ourselves also, which have the first fruits of the Spirit, even we ourselves groan within ourselves, waiting for the adoption of the redemption of our body."

Colesberg.

SPEECH-MAKING.

How incredibly fond are the English of speech-making! It is utterly impossible to conceive an occasion on which a speech could be, but is not, made wherever Englishmen are congregated together. Christenings and weddings invariably give rise to oratory, and I am confident that few Englishmen attend a funeral without a wish to address the people assembled. The services of the Church of England do not admit of it, but I have rarely been present at the funeral of anyone belonging to the Dutch or Scotch Churches (which have no burial services at all) without hearing an oration over the grave. I am not saying that this is improper. I am merely recording the fact, to show that men's births, marriages, and deaths are among the occasions seized upon for making speeches. As to the minor events of, life they are invariably pressed into the service by our orators, or would-be orators.

What are called after-dinner speeches are almost unknown out of England and England's Colonies; but then the European Continent has only just begun to adopt slowly and cautiously that wonderful English institution—a public dinner. Occasionally one hears of a great "banquet" in France; but the very word is suggestive of something different from the public dinners

of Great Britain. One pictures a monarch in regal robes, with a real crown, presiding at a "banquet," with huge gold goblets before him, which must have been uncomfortably heavy and inconvenient to drink out of—a sort of Sardanapalus scene on the stage, where people pretend to eat rather than do it in reality. No one could make a speech at a banquet; he might as well try to crack jokes at a Quakers' meeting. A London Tavern or a Freemason's Tavern public dinner is a very different thing from a banquet. Turtle soup and iced champagne in their wide-bowled glasses are exceedingly unlike Sardanapalus feasts, and a great deal pleasanter. And yet these dinners are never given for the purpose of enabling people to consume a given quantity of solids and fluids—these things are secondary to the grand and vital object which is to afford an opportunity of letting off an indefinite number of speeches. Ordinarily, there is some great gun of a speaker who is the centre of attraction; he is either the chairman or the guest of the evening. It is to hear him that people have paid their one or two guineas a head. Very often the individual in question is lamentably deficient in the main qualifications of an orator; he may be a brave soldier or a great traveller, a man of science or a man of literature; he may have done all sorts of things to make him admired, respected, loved, or envied, but still he may be as incapable of making a good speech as the least remarkable man of the whole company. Nevertheless, he is expected to do it, and two or three hundred people are assembled to listen to his efforts. As a matter of course, he has undergone great mental anguish in the preparation of his

speech, has thought over it again and again, perhaps written it, and read it to his wife, who has pronounced it perfect, and he thinks he has learnt it. Poor fellow! he cannot remember a word of it as he stands up and faces those three hundred eager listeners; he is much worse off than if he had had no time for preparation at all, for then he would have blurted out whatever came uppermost in his mind; but now he is striving to recollect what he has written, and in his effort to do so is utterly incapable of thought. He faced the enemy in the deadly breach without even a quickening of the pulse; he knew no fear when he wandered alone in the desert, tracked by wild beasts and wilder men; he propounded his new theory of caloric heedless of the roar of disapprobation from scientific Europe; he wrote the book which called forth the storm of hostile criticism which never fluttered his heart for a moment; and yet here he stands now—the soldier, or the traveller, or the man of science, or the author—trembling and shaking like an aspen leaf because he has to return some thanks and pay some compliments at the top of his voice to three hundred listeners. The man is a martyr to the English love of speech-making, but the British public insists on such martyrdom. The result is that each of the three hundred goes away with a feeling in his own heart that the warrior, traveller, or author is a greatly overrated man after all—and this because he cannot make an after-dinner, or any other sort of, speech.

Considering what a small proportion the goodness of quality bears to the enormous quantity of public speaking, it is strange that Britons have not become wearied of it.

I am confident that for every good speech delivered in the course of a year, fifty good books are published; and yet there are few people who would not think it a much more difficult task to write a book than to make a speech. I think the greatest of all bores are bad speakers; and the worst of bad speakers are those who have a certain fluency of words. A man who stammers, stutters, and can't bring out his sentences at all soon comes, *ex necessitate*, to an end; but poor, troublesome, wearying fellow is he who is at no loss for words and a certain set of phrases, but never has a new idea of his own, and goes on drawing out his platitudes till you wish the champagne had choked him. When these men are chairmen they are generally painfully dignified, not to say pompous. They never omit to speak of the Queen as the royal lady whose virtues have endeared her to her people, and whose name is never mentioned without enthusiasm wherever Englishmen are congregated together. The guest of the evening, if there is a guest, is always "respected;" the Army and Navy are always the gallant defenders of our homes and hearths. The faintest sparkle of humour, the remotest twinkling of a joke, is never found in the addresses of these dreadfully respectable speakers.

It is very common at a public dinner, when about half the toasts are over, to see some gentleman about two thirds of the way down the table start upon his legs and address the chairman. Who is he? Nobody knows, except two or three in his immediate vicinity: all eyes are turned on him and all ears are listening to him. He is not in the least degree abashed: he has come to make a speech, and he means to do it. Away he goes:

he is a small, spare man, but has the voice of a Stentor. He does not "handle" his subject—the expression is too mild—he collars it. In a moment you see that he has it tight in hand, and he won't let go of it till he has shaken the life out of it. You can't help hearing him, because he is loud and fluent: he is unconventional, too, and does not mind telling previous speakers that they have been talking nonsense. He stamps on tender corns, heedless whose they are,—in fact heedless of everything but letting off his own speech. If any one tries to put him down with an "oh! oh!" or "chair!" he turns on the daring individual with a scornful look, and with a few sharp, telling words crushes him, and raises a laugh at his expense on the spot. (How pleasant it is to see a man made thoroughly uncomfortable!) Generally this speaker, whom no one knows, goes right against the tenor of all the previous speeches—pronounces the charity in support of which you are dining a sham; doubts some of the incidents recorded by the great traveller; hints that the great man of science will modify his views when he has read a little more; reminds the great hero that the men under his command braved just the same dangers as himself; and assures the author that a popular novel is but a poor sort of literary success after all. When he sits down there are a few involuntary cheers and a great deal of disapprobation. He has made a great many people uncomfortable, knocked a lot of pleasant delusions on the head, and let into the room the only sense which has been heard in the course of the evening. You never see a man of this kind in the chair,

and never find his name among those who are to be called on to give, or respond to, a toast; but setting aside the fact that all speeches, save the very best, are necessarily boring, this style of orator greatly relieves the tedium of a public dinner.

But if speech-making at public dinners is tiresome, how infinitely more unendurable is the speech-making at public meetings,—meetings called for the sole purpose of making speeches. While the bore is at work after dinner, there are the claret and the walnuts to console you; but what are you to do at the public meeting? I have no pity on you: you went there either with malice prepense to make a speech yourself—and depend upon it you would have been the only man in the room who thought it a good one—or you went there for the avowed purpose of listening to bad speeches from others. In either case you deserve to be ineffably bored. And at these meetings you are almost sure to hear the most offensive of all speeches—the "personal experience" speech. I hope I shall not be considered uncharitable when I say that I never believe the personal experiences related in a speech, whether they be those of the distinguished traveller, the reformed drunkard, the converted Catholic, or any one else. The very people that relate them so glibly would not dare to write and publish them with notes and references, dates and places. At the meeting they use figures of speech to attract applause, and the "hear! hears!" are provocative of exaggeration. The barriers of veracity are passed, and they career wildly in the wide plains of fiction.

There is a much higher order of speech-making than

all I have hitherto been writing about—the speech-making of great politicians and statesmen. I do not mean those which they make in "the House," which are matters of business, but those which they address to constituents and non-constituents out of it. Some of them are very good—some of the highest order, indeed; but the greater number fairly come within the category of clap-trap. When a Liberal leader talks for three hours to prove that the very essence of Conservatism is its determination to ruin the country financially, he knows that he is breaking the ninth commandment; he does not believe what he is saying for a single moment; he hardly expects his hearers to believe it literally—in a word, he is talking clap-trap: but he also understands the mob he addresses, and fully appreciates its ardent love of clap-trap dished up to it by men in high place. When a Conservative chief denounces the jesuitical, anti-English proceedings of the opposite side, and says that Whigs have ever sought, above all things, to crush popular freedom, he also is aware that he is cantering over the plains of fiction, and that those who listen to him never imagine that he is walking in the garden of truth; but he, again, also knows that the unreality is pleasing, and the slander of our opponents refreshing and comforting. Do these manifestoes in the shape of speeches do good or harm? They are heard by thousands and read by hundreds of thousands: the pabulum is liked, but what shall we say of the palates that are pleased by it? Would it, or would it not, be better for morality, truth, and good feeling that party leaders, instead of becoming itinerant speech-makers, should sit down and deliberately

and carefully write and publish their manifestoes, giving their words of honour as gentlemen that they thoroughly believe what they thus carefully give to the world? I am not sure that the advantages would be great; but I am quite sure that no sensible man believes a party-speech-maker to be in earnest about more than one tenth of what he utters in public.

I must not forget one other sort of speech-making—that of the bar. Oratory is said to have died out from the English bar, and not to flourish greatly even in the Irish Courts. A great pity, if true; for as judicial proceedings must be conducted partly through speech-making, it is well that the speeches should be the best of their kind. I take it to be clear that the great fault of our present forensic oratory is its carelessness. We are so engrossed with our facts and our arguments that we neglect the art of manipulating the one and enforcing the other with grace and ease. We fancy that juries are impressionable by oratory only in proportion to their ignorance, and that judges are wholly uninfluenced by it. Nothing can be more mistaken than this idea. It is true that vulgar and coarse appeals, in the genuine old style of the Old Bailey, can only have influence with coarse and uneducated minds; but the more educated and refined the audience, the more powerful will be the effect produced by truly noble oratory. Wit, pathos, humour, imagery, and illustration must call forth the sympathies of taste, education, and feeling. Until juries and judges are destitute of all three, they must be influenced by good speakers. Nor must it be forgotten that as argument represents thought, and words are the only

medium of conveying our thoughts to others, the choice of words is of the very greatest importance, and he is the best speaker who uses the most appropriate. We have no right to expect any one to be eternally cracking our nuts for us in order to get at the kernel—if we wish them to taste the flavour, we must give them the kernel itself in the most attractive form in which we can present it.

On the whole, I think we English are terribly fond of making speeches, most of which are bad and out of place; but I believe that this propensity acts as a safety valve for letting off a great many political and social discontents, which, restrained, might break out in worse forms, and therefore I accept the boredom it occasions, grateful that others share it with me.

INSECT LIFE IN SOUTH AFRICA.

Milverton.—I have been very fortunate in life as regards friends and acquaintances. I have known poets, historians, philosophers, ————.

Ellesmere.—Observe where the fellow puts historians, because he happens to dote upon history.

Milverton.—Poets, historians, philosophers, statesmen, men of science, artists, doctors, lawyers, and merchants, but I was never fortunate enough to know any man who had made the insect world his study. I am sure I do not know what is the proper name for such a man—I suppose an entomologist. Well, I was never fortunate enough to know an entomologist.

If we had such a man with us now, what interesting things he could tell us about the myriads of inhabitants of this rushy streamlet. I believe there are creatures below us there, which can both crawl and hop, and fly and swim; which possess eyes by the score; can weave and spin and build nests in water; which, in short, embody all the vagaries of the most fanciful person, and about which, by the way, if they were familiar to us, fables and stories might be written having much more pith and diversity in them than those about dogs, bears, wolves, elephants, and foxes, which, after all, are poor simple creatures like ourselves, being seldom able to do more than one thing very well.

Ellesmere.—I do not think much of your entomologist. I do not want him here at all. He would merely shy barbarous words, half Latin, half Greek, at us, and bother us about "genus" and "species" and other things, for which we should not really care one solitary dump.

Besides, we should have to hear all about his grand discovery of the *onomatoscylax*, some pestilent little creature that hops, and runs, and bites, and wriggles, and turns up its tail spitefully at you. No; give me the man who can talk well about anything if you only give him

a rough bit of a brief to talk upon. Just read to me, or any other lawyer, a little chapter in any book about insects, and we will argue their case in a manner that will bring round any jury to think whatever we are instructed to make them think on behalf of our clients. There are creatures, are there not, who pop out of their shells to take the air, and then other creatures pop into the vacant shells, and when the softies come back, they find their homes occupied, and the doors bolted against them. What a good case for an action of ejectment!

Milverton.—Mark you, I do not mean to say that I have not known men such as Carlyle, Kingsley, and Emerson, who have been able to talk admirably about all forms of nature, from the highest to the lowest. As I think I have told you before, I never heard a more exquisite conversation than one in which Carlyle and Emerson, both of them nice and patient observers of natural objects, discoursed upon the merits and beauties of common grass. A walk, too, in the country with Kingsley is something to remember; but still I say, as I said before, I should like to know a real entomologist, a man who has lived a great deal with insects ————

Ellesmere.—The Patronage-Secretary of the Treasury!

Milverton.—And who could tell me all about the *onomatopylex*, which Ellesmere ————

Ellesmere.—No, no; if you are scientific, be accurate—*onomatoscylax*.

Milverton.—Which Ellesmere affects to scorn, but which I have no doubt, if well studied, would afford the human race many a good lesson in the arts of life. Very probably he is a great architect. The arch was constructed by insects long before it was known to man.

Mauleverer.—Talking of men who have studied these minor creatures, there is Mr. G. H. Lewes. You know him, Milverton?

Milverton.—Yes; but he is too gelatinous. He describes admirably; is as clear as the sky at Avignon; but his talk is of molluscs, sea-anemones, jelly-fish, and other flabby, pulpy creatures, squeezable as Ministers of State. I want a man who has lived with well-developed, shrewd, masterful, designing insects."

REALMAH—(Macmillan's Magazine.)

FOR the above rather lengthy quotation, the writer of this paper feels sure that he has no occasion to make apology. Those who have read the varied and brilliant series of

dialogues in "Macmillan," from one of which the extract is made, will not object to peruse any part for the second time; and those who have not done so will doubtless be glad to turn from the sample given to the articles themselves.

It is not unlikely that many have shared, though not expressed, the wish of the thoughtful *Milverton* to "know a real entomologist," who could tell them something of that busy world of insects which is in unresting activity all around them. But not only is the entomologist rather a rare variety of mankind, even in this day of general scientific research; he is also naturally of a retiring disposition, not prone to the display which the sarcastic *Ellesmere* would lay to his charge, nor disposed to vaunt his own discoveries, albeit they should include the nondescript "*onomatoscylax*." There can be no doubt that *Milverton* must often have met entomologists in that full and varied acquaintance which he enumerates; but those worthy men, conscious of the vastness of their field of study, and of the comparative smallness of their knowledge, had no desire to parade their acquirements or to volunteer unsought information. But had that historian and philosopher really sought the acquaintance of an entomologist, in place of idly wishing to know one and waiting till some chance should throw him in his way, he would have found the most prompt and genial fellowship, and learnt the truth of wonders that never crossed his imagination in its most excited and sensitive moments.

So important a part do insects everywhere perform in the present order of Nature, that it behoves everybody to know something about them. And that knowledge

needs not to be of a profoundly scientific kind in order to be very interesting, though it must necessarily be founded upon the labours of those who have made the subject their serious study. Not without reason has this era been termed "the Age of Insects," for these animals now present a number and variety immeasurably greater than has ever been the case in former periods of the world's existence, if we are to judge by the scanty remains of them to be found in the various strata from the coal measures upwards. But almost with equal justice might the last one hundred years be termed "the Age of Books about Insects," for number of works devoted to the subject since the days of Linnæus is something remarkable, and may be imagined from the fact that the eminent Dr. Hagen's *Bibliotheca Entomologica*, Vol. 1, a mere catalogue of the literature of entomology up to the year 1862, and only extending through the letters A—M, is a portly octavo of 556 pages. Yet so far are these thousands of volumes from exhausting the great branch of Natural Science to which they relate, that they can only be considered collectively as a kind of preface or general introduction to the entomology of the future.

It is not, however, the object of these pages to descant upon insect-lore in general, or to attempt any exposition, however brief, of the scope and purport of the study; but the intention is simply to direct attention to some of the more striking features of social and individual insect life in Southern Africa, and to point out what amusement and pleasant occupation result from their observation.

Regarding this wide region broadly, and excepting certain favoured localities, it must be admitted that the

apparent, active presence and exhibition of insect life is not striking. One may often walk for miles up hill and down dale, and observe little or nothing to attract the eye, even in the case of an experienced collector. Very strange is it to stand among a multitude of the brilliant flowers that, in the Western Province especially, lend such wondrous beauty to a Cape spring-time, and yet to see scarcely a score of insects rejoicing in the colour, odour, and nectar so profusely supplied. Some few bees are sure to be about; but they are so obviously and unmistakeably at work "On Her Majesty's Service"—such eager and hurried *Queen's Messengers*—that they hardly seem in keeping with the quiet sunshine and dreaming, indolent flowers. That glowing, blushing *Sparaxis*, that high-bred, blue-veined orchid, that tremulous, delicate *Ixia*, may well shrink from those bustling brown-coated officials, with their brusque, unmannerly advances, and sigh for those noble wooers who so seldom come, those gentle, fluttering exquisites who more than rival them in splendour of apparel—the courtly butterflies. On closer inspection, however, it will be found that sundry stout little beetles have made themselves quite at home with the lady-like blossoms; some sturdy fellows, in particular, who attach themselves to the *Compositæ*, completely outdo the bees, burying themselves head first among the florets, with nothing of them to be seen but their long crooked hind-legs in the air. Add to these divers burly two-winged flies, rapid of flight, which at intervals plunge their long proboscis first into one nectary and then into another,—and the tale of visibly stirring insects is well-nigh told.

The later season, from October to March, presents entomologically a much fuller show, though the exhibition of flowers is so much diminished. Then, both mountain and plain are enlivened by insects of all orders ; but, though species are numerous, it is seldom that one notices abundance of individuals. Pursue, at this season, your observant way along some wagon-path on the flats, or devious cattle-track on the hill-side, and curious creatures are sure to attract your attention. Look at that long, active, compact beetle, rapidly coursing over the hot ground, and often stopping abruptly to look about, while his fine horns are held upward and vibrating. That is an *Anthia*, a remorseless and greedy creature, ever hunting for living prey. Mark the adaptation of its hard armour, muscular limbs, huge curved jaws, and prominent eyes, for a life of rapine. Admirably furnished is this beetle with means both of offence and defence. As if its coat of mail, trenchant weapons, and power of rapid locomotion were not sufficient, it can emit upon occasion (as you will find if you seize it) an acrid, volatile liquid, which can be expelled with considerable force, and causes a burning pain if it come in contact with the eye or other tender surface. Approach this rapacious insect tyrant, and he will speedily run off to the nearest shelter ; but if you stand or sit quietly and watch his proceedings, you will see with what care and pertinacity he conducts his search, and with what promptness he pounces on the first unwary or unarmed victim that crosses his path, be it basking fly or plump caterpillar. Occasionally one of his own species enters on the scene, and the oddest manœuvres ensue between the two, usually terminating in a

rough-and-tumble fight, which serves to give each a taste of the other's quality, and is wont to lead to a decided separation of the respective hunting-grounds.

Not a very distant relation of *Anthia* is yonder much smaller insect, which runs with greater swiftness, and possesses the additional advantage of wings, enabling it to take frequent flights of a few yards in extent. This is one of the numerous tiger beetles *(Cicindelæ)*, insects of great beauty and equally great rapacity, though the former quality only belongs to them in their final or perfect state. When young, they are the ugliest grubs imaginable, long in body, humped in the back, and short and unsteady of legs, insomuch that, so far from being active, they can barely walk. But craft supplies the place of agility; and that glittering hunter who now by aid of legs and wings secures his prey so certainly, was wont, in the days of his uncouth youth, to dig a hole in the sand for his unwieldy body, and, fixing himself vertically therein by means of two hooks on his humped back, to close the orifice with his hard, flat head. So placed, his goggle eyes ever watchful, the patient larva awaited the approach of any small insect whom business or pleasure might render unobservant of those terrible mandibles until they closed upon the victim to devour him. One cannot help imagining that a heavy, inactive grub of this sort, on finding himself developed into a smart, agile, well-appointed beetle in a new suit of coat-armour, must feel as surprised as Hans Andersen's "ugly duckling" when she suddenly discovered herself to be a swan!

Not seldom, on your rambles near Cape Town, will you witness a singular struggle between one of the great,

hairy ground-spiders and a huge sand-wasp. The former is a hunter and wanderer, not distantly related to the famous *tarantula* of Southern Europe; and, what with its size, strength, keen sight, quick motion, and powerful poisoned weapons, hard and sharp as needles, it might well be considered as more than a match for any insect foe. But such is not the case; for this formidable spider, whose existence is devoted to the destruction of the larger insects, is itself the favourite prey of the wasps that burrow in the ground. Few people can have failed to notice the largest of these fine Hymenoptera, a glossy-black insect, with the wings and part of the legs orange, which makes a rustling sound as it flies, particularly when first rising from the ground. The female of this giant *Sphex* is in perpetual motion; her nursery is conveniently dug in some sandy or gravelly bank, and her coming progeny must be provided with a supply of the food that suits them, which is nothing else but *fresh spider*. No description can do justice to the resolute energy, the fixed determination, the restless anxiety with which this admirable creature pursues her search; she must be seen and watched to be properly appreciated. Now flying, now running, every nook and corner is ransacked, till the spider that is to provide, in its own luckless person, *board* for the interesting young family of the *Sphex* is discovered. Unhappy Arachnide! thy doom is sealed. Thou art but a poor monster after all, and Mrs. Sphex is like Perseus and Pegasus combined, an armed and winged centauress, who attacks thee with her cruel lance from above and behind, where thy body wholly lacketh mail. What! thou findest that other creatures carry envenomed

weapons besides thyself?—and now the poison tells, and thou gatherest thy limbs together to die. But now begin the sand-wasp's most arduous labours. The bulky victim has to be conveyed to the residence of the future family, often far from the scene of conflict, and is usually so heavy that the huntress, muscular as she is, cannot possibly carry it on the wing. Accordingly, she fixes her jaws in the spider's back, and vigorously drags the body along the ground, with indomitable perseverance surmounting every obstacle that intervenes, and often loosing her hold to make a short survey of the ground which she has yet to traverse. When the spider is thus left, some motion may often be detected in its limbs; and, in fact, it is not dead, but paralysed most effectually. This is the most important part of the whole affair, as it turns out, for the grubs of the *Sphex* require *living* fare; and their anxious mother, though probably dying before they emerge from the eggs which she lays, anticipates their wants by packing into their cell a fat, helpless spider, which, dead as it may seem, is actually in a comatose state, and will remain so till all but its harder parts are devoured. This extraordinary fact has been verified by numerous observations, and is supported by parallel instances in the case of other Hymenoptera that store up caterpillars, grasshoppers, &c. The effect is by some observers attributed to a peculiar property of the poison injected by the sting of the sand-wasp.

But, leaving these *Carnivora* of the insect world, let us bestow some notice upon those whose office it is to keep down the over-growth of vegetation, at any rate during their earlier stages. Conspicuous among these milder

tribes are the richly-adorned butterflies and moths, which compel the notice and admiration of the least observant persons. Climb up a slope of the mountain range until you reach some sheltered little *plateau*, whose greenery is diversified with the stately blue *Agapanthus*, and the rock-loving *Crassula* with its clustered masses of crimson blossoms. Here you are sure to meet with butterflies that rarely descend to level country, and conspicuous among them is the splendid creature that is named *Tulbaghia* (in honour of a former Dutch Governor of the Cape), and is confined in its range to Southern Africa. This noble insect seems specially to affect red flowers, delighting to settle on the Guernsey lily, or more humble *Antholyza*, which contrast most effectively with the warm-brown, ochre-yellow, and dark-blue of its broad wings. Almost as beautiful, though far commoner, is its frequent companion, *Demoleus*,—the species, so frequent in gardens, that rejoices in the local name of "*Vaderlandsche*," from its general resemblance to the swallow-tail butterfly of Europe. It is curious to mark the difference of flight in these two species, almost equally strong on the wing. While *Tulbaghia* goes with a certain steady directness to the rock or flower on which it intends to settle, *Demoleus* flaunts about, battles with others of his kind, and seems full of exuberant life and gaiety, keeping his sulphur-spotted wings in ceaseless vibration even when drinking from the flower cups. The beautiful caterpillar of *Demoleus* may readily be found on sundry mountain *Umbelliferæ*, and in gardens on orange trees and fennel. It is bright-green, variegated with purple and white; and, when annoyed, protrudes from its neck a curious red organ

shaped like a Y, which is kept in tremulous motion, and has a very singular penetrating odour. To so conspicuous a caterpillar, feeding perfectly exposed, this curious appendage is no doubt a very important means of defence, serving to repel many insect enemies, and possibly even birds. Among the smaller mountain-haunting butterflies are various "Browns,"—dusky-robed Oreads, that flit waveringly among the rocks and shrubs, and seem, when they close their wings and rest, to be keeping watch upon you with the eye-like spots that adorn them.

If you notice sundry silver-trees looking rather thin and bare in respect of leaves, a very cursory inspection will discover the great larvæ that have done the mischief, for they attempt no concealment; and are brightly coloured with dots of blue, green, and yellow on a mahogany-red ground. The denuded look of the trees will not surprise anybody who once watches with what ease and celerity a huge caterpillar of this description disposes of one leaf after another. Contrary to the custom of its tribe (the same great group to which the silkworm belongs), this larva spins no cocoon, but undergoes its change to a chrysalis just below the surface of the ground; and it finally emerges, after a burial of many weeks, as a magnificent "Emperor," with eyed wings five inches in expanse.

But in South Africa, as in other parts of the world, butterflies and moths, and indeed most orders of insects, abound to a much greater extent in districts that are more or less wooded, than in those that are devoid of trees. This is easily understood, for forests afford ample shelter and vast supplies of vegetable food. The woods have a fauna of their own as well as a flora; and no one is more

struck with this than the observer of insects. As an instance, take the splendid sylvan butterflies belonging to the genus *Charaxes*, the strongest and swiftest of their tribe, which live entirely among forest trees, darting with such rapidity from one trunk or bough to another, that the eye can scarcely follow their flight. Unlike the vast majority of their kindred, these powerful insects seem to disdain the nectar of flowers, and go in for drinks of the strongest description in the shape of the fermenting exudations from wounded trees, or any putrescent moisture in the neighbourhood. It is curious to place side by side with one of these tree-butterflies, massive of thorax and broad and rigid of wing, a fragile species that inhabits the very same woods, and is of the most delicate structure and feeble flight—the white *Pontia*. A very ghost, a graceful phantom of a butterfly, which can scarcely be captured without injury, and which flits slowly among the shady undergrowth and herbage,—it is the greatest contrast imaginable to the full-blooded, richly-coloured *Charaxes*, which seems to exult in its plenitude of life and strength.

The Lepidoptera (or butterflies and moths) stand alone, as an entire order, among insects in being altogether without weapons of offence, yet they manage to flourish among innumerable and formidable foes. Their means of escape are various, but all come under two heads—flight and concealment. Unable to fight, they must either fly or hide. Some escape by their power of wing; but many more, to all appearance, evade their pursuers by the extreme irregularity and uncertainty of their wayward course through the air, which often baffles the direct swoop of the swifter enemy. A very large number

(especially of the moths) find their safety in their more or less close resemblance, in colouring, to the leaves, stems, or other objects upon which they habitually rest. Certain groups of conspicuous and abundant species, which are remarkably slow fliers, are protected by a peculiar odour, which—accompanied probably by an unpleasant taste—renders them unacceptable to insectivorous birds and other enemies. And some few, strange as it may seem, only avoid destruction by their likeness, often wonderfully exact, to the butterflies so protected by their evil smell. With these latter are to be found the imitative species, sometimes appertaining to *three* widely-differing families; and as they often mimic the flight as well as the appearance of the protected insects, and disport themselves in their company, they are doubtless regarded by animals in search of prey as members of the malodorous and distasteful tribes, which are habitually passed by as unfit for food.

Turning to an order which is composed almost wholly of vegetarian insects—the Orthoptera—we find among them one group essentially carnivorous, the well-known *Mantidæ*, commonly called at the Cape "Hottentot gods." In these creatures, the first pair of legs is especially adapted for securing living prey; those limbs being lengthened, enlarged, set with rows of sharp spines, and capable of being suddenly flung out to clasp any insect within reach. The grasping power of these formidable arms (for they are truly arms in function, rather than legs) is wonderful; and a *Mantis* may sometimes be observed clinging to and devouring an insect whose bulk and general strength are so much greater that it drags the former along the ground. Slow and sedentary insects as a rule, the "Hottentot

gods" much resemble the chameleons in their tactics, resting motionless, but vigilant, on branches, leaves, or flowers till some prey is within their reach. And as the chameleon is rendered less conspicuous by the general adaptation of its colouring to the object upon which it may for the time be resting, so the *Mantis* most commonly mimics in form and colour the vegetation which it frequents. A small species, not uncommon near Cape Town, that loves the ground, and can run with moderate swiftness, is of a dull, inconspicuous brownish-grey hue, scarcely distinguishable from the earth on which it moves. But a far more singular example of the family was discovered by the writer in Natal,—a species (believed to be the type of a new genus) that in its very slender, elongate body and limbs, and even in its ordinary attitudes, so closely resembled the harmless, plant-eating *Phasmidæ*, or spectre insects, of the same region, that there can be little doubt that most insects would approach it without alarm, until the fatal paws of the *Mantis* shot out from the feeble-looking creature and embraced their prey. One naturalist to whom this *Mantis* was shown expressed his conviction that the *Phasma*-like configuration enabled the devourer to approach and prey upon the *Phasmidæ* themselves,—a complete analogue to the "wolf in sheep's clothing."

To the few instances of South African insect life here imperfectly noticed, hundreds might readily be added. Those brought forward are merely given as samples o the rest, as indications of the rich and inexhaustible field that awaits research. One is constrained to admit that a time will come when every insect, as well as every other

organic being on the globe, will have been discovered and made known; but who can venture to calculate, if even to anticipate, the period when every mystery of insect anatomy, physiology, and economy will have been cleared up—when every detail of the habits, geographical range, and life-relations of such innumerable and wonderful creatures will be included in the range of human knowledge? Those who have studied most will be the readiest to declare that such a day—if it ever come at all—is at a distance in the future immensely remote; and thus no observer in the pleasant fields of entomology need entertain the slightest apprehension of ever finding that his occupation is gone, or that he has reached the limit of discovery.

It may not be inopportune, in conclusion, to call attention to the enjoyment which the practical pursuit of entomology affords, and which is comparatively keener than that to be derived from most other branches of natural history, though many delights are common to all alike. The free air, the healthful exercise, the thorough sense of freedom, all the sweet changeful influences of Nature, in colouring, sounds, and odours,—and the very joy of the chase,—are pleasures which are shared by all naturalists, as well as that higher and truer intellectual happiness resulting from earnest study of the material amassed in the field. But the class of insects is so pre-eminent in the number and variety of its members, so distinguished for marvellous instincts and modes of life that find no parallel among other great groups of animals, and is in itself so complete and compact a microcosm, that he who makes it his study seems to gain admission into a new world—a world that has its wars and intrigues,

its societies and recluses, its slave-owners and slaves, its marauding banditti and skulking pilferers, its cannibals and vegetarians, its very rivalries and love-chases,—and a hundred other characteristics that present more or less of analogy to those of the human world in which he himself figures. The limited stature of insects and their all but universal presence afford singular facilities for the close observation of many together within a small space, and the ease with which they can be captured and preserved, and the little room that the specimens require, greatly favour the formation of a good working collection.

Observers of insects are very "few and far between" in South Africa,—even rarer than collectors, who are themselves far from numerous; and yet how many colonial residents there must be who are much in want of something to interest and amuse their leisure, and who might supply their need by paying some attention to entomology. *Residents* are mentioned advisedly, for it is they alone who can observe to any purpose. The visitor from Europe, who hurries through the country, may collect specimens largely, but has very little time or opportunity to watch the living insects and note their ways of life and peculiar habits. Though the collector's services are by no means to be despised, the man who best aids the advancement of Natural Science is he *who patiently observes and accurately records his observations;* and it is in the hope that some additional workers in entomology may be gained that the writer invites attention to a study that has given him many of his happiest hours.

PREJUDICE AGAINST COLOUR.

Candida de nigris, et de candentibus atra.—Ovid.
Black sheep among the white, and white among the black.

"Ne crede colori," the Poet erst sang,
Appearances ever delude;
But white is the hue, that to us is genteel,
The black one, of course, is tabooed!

Jan Wit-schijn,—he ranks with the favour'd race,
Though conscience by vice is long sear'd:
To him virtue's a stranger, and honour unknown;
What matter? He's duly veneer'd!

Poor Zwart-kleur's an honest and truly good fellow,
Fears, honours, and humbly obeys;
But still, 'mid the fold of the black sheep, he's spurn'd;
'Tis colour, not merit, that pays!

L. D.

THE CITY OF MOZAMBIQUE.

In the beginning of January, 1862, we found ourselves in the Mozambique Channel, off the low, tree-covered shore which forms the delta of the Zambesi. We had an appointment to be in that part of the world about the beginning of that month and of that year, to meet the traveller whose labours have done so much to open up South Central Africa, and to completely reverse our ideas about that portion of the least known of all the continents.

For two days we stood off and on the coast, firing guns by day and rockets by night, but no return signal showed the presence of Dr. Livingstone on the delta. In accordance with our instructions, we bore away northwards for Mozambique. After encountering a tornado on our course thither, which came down upon us at midnight with sudden onslaught and splendid uproar, we beheld at dawn on the tenth day, in all the freshness and beauty of the morning light, the pink-coloured buildings of the city.

I made my first acquaintance with it at that time, and in the following year I was again there for a period of nearly six weeks, a sort of prisoner at large, from the impossibility of getting away from a place which has no direct trade with the Cape, and very little with any British port. I had during that time abundant opportunities of

becoming acquainted with Mozambique and its people—with some of them more intimately than so short a stay usually permits.

Half an hour within the City of Mozambique will satisfy the traveller that its glories, like the maritime power and repute of the people to whom it belongs, are entirely things of the past. There are many proofs of power, grandeur, and wealth, but these belong to the olden time. Mozambique lies on an island of the same name less than two miles long and about half a mile broad. It is separated from the mainland by a channel, three to four miles broad, which forms the inner harbour. You land from this inner harbour on an excellent pier, built of African teak or some equally hard wood. The pier rests on ten buttresses of stone, admirably built. There are no docks of any kind, though there is a place called the Arsenal.

Arrived at the upper end of this substantial pier, two buildings attract your attention. The nearest to the right is the Custom-house, coloured pink, with enormously thick walls, and, therefore, delightfully cool. I used to think it one of the pleasantest places in the town from the occasional bustle and life when ships were entering or clearing. There is, of course, none of the hurrying activity that belongs to such places in more prosperous commercial cities.

Close by and a little to the left is the palace of the Governor-General, also of the prevailing pinkish-white colour. This hue seems to relieve the eye from the piercing glare of the dazzling white under so brilliant a sky. The palace is an imposing and pleasantly situated building; is well ventilated, being fanned by the sea breeze;

has a square court in the centre, with some flowering shrubs, and open corridors running along the sides. It is not saying much to assert that it offers a marked contrast to Government-house at Cape Town, which, correctly or not, struck me the first time I visited it, seven years ago, as having a certain damp mouldiness, and depressed, decayed air about it, as if it had lived its time and served its purpose, and should now give place to something better.

This flat-roofed Mozambique palace was built originally, it is said, as a College of the Jesuits, and was used as such before their expulsion,—that inevitable event in their history. This seems a standing law of their fate in all countries, after a certain time has been allowed them to carry on their subterranean labours. No part of their history repeats itself so steadily as this. It is singular that every nation, on awakening to a period of revived life and progress, should signalize that era by requesting these worthy gentlemen of most polished manners, most varied learning, and blandest tones, to quit their country for their country's good. One would think such indefatigable labours deserved a better fate. Nevertheless, this ingratitude is historically true, without exception ; as witness the journey northwards across the Pyrenees, a few weeks ago, of numbers of those persecuted men, whom the events of a day suddenly compelled to quit a country which, in all human seeming, they could securely reckon as their own. In what subaqueous or subterrene region will these unemployed workmen next find occupation ?

It may seem strange that the passport system should hold sway in any part of Eastern Africa, but it does so in

the Portuguese dominions, and you must land and dwell in Mozambique under many of the restrictions which I found imposed on my personal liberty as a free-born Briton in out-of-the-way towns in Austria ten years ago. This passport business took me to the palace the day after I landed; and I had also the honour of an interview with His Excellency the Governor-General, in a conversation of three quarters of an hour, in a free and easy way, in the library. I was naturally at first delighted at this ready access and distinguished courtesy. But I had not been seated many minutes before there slowly dawned on my dull brain the clear outline and moral contour of the whole occasion. As a man newly arrived from a region into which few travellers penetrate, and from which, alas! still fewer return, I might, by proper manipulation, afford some information even to a Governor-General, and narrate from personal testimony some facts relating to the movements of an expedition which was hanging on the outskirts of the Portuguese territories, and doing things, in the way of releasing slaves, so unheard of as to occasion, it was said, correspondence of an official kind between the Courts of Lisbon and St. James's.

I had nothing to conceal; and though it is not discreet to speak all your mind, all at one time, and all to one person, I was quite willing to endure a gentlemanly kind of pumping from so distinguished a hand and handle. I answered all inquiries about the country, its products and its people, freely and directly; and yet I am not disposed to admit that, even under the process referred to, His Excellency produced a complete vacuum. Of that, intellect and nature are equally abhorrent. Had His Excel-

lency been able to quote Burns, he would probably have said as I took my leave, and in a tone in which more was meant than met the ear,

> Aye free aff-hand your story tell
> When wi' a bosom crony;
> But aye keep something to yoursel'
> Ye'd hardly tell to ony.

However, I should be sorry to convey the idea that I left with an unfavourable impression of the distinguished Governor-General (D'Almeida, the predecessor of the late Governor, who died last year). Only a few days after my visit to the palace, I experienced at his hands a most substantial kindness; and on to the end of my stay in Mozambique I experienced nothing else from him and all my Portuguese friends.

Leaving the palace we make our way through the city. The streets, with one or two exceptions, are narrow and crooked, and offer a great contrast to the rectangular regularity of Cape Town. Nearly all the houses are strongly built, and despite of their dead fronts and flat roofs, convey the impression that wealth and luxury were at one period known in Mozambique. For a time you wander along these narrow streets and wonder that you do not arrive at the main thoroughfare which constitutes the backbone or chief artery of the city's life. If you have expected to find a stream of population flowing through the streets such as belongs to a European or Eastern city you will be disappointed. The native population forms nine tenths of all you meet. There are comparatively few white men, and no ladies—not one to be seen. They exist, but they do not come abroad. The greatest

assembly of them I witnessed was in the largest church on Easter Sunday. Had I not seen them there, and one or two elsewhere, I should have been disposed to assert, judging from the streets, that there were not ten white women in Mozambique.

Surprised that you are not reaching the best part of the town, you stop to make inquiry, and presently discover that you have already passed through the busiest part of the city—and there is not much more to be seen. Like many other cities, and specially like the city of the Golden Horn, which is all beauty and picturesque symmetry when seen from the sea, and disorder and confusion within, Mozambique appears to most advantage when seen from the deck of a ship after a stormy voyage. The protective shade of a little kindly perspective greatly enhances its appearance and heightens your first impressions.

But if we continue our course through the streets, one or two public buildings attract our attention. There are four churches or chapels in the city, and one of them is called the Cathedral. It resembles one of those middle-class churches one sees in second-rate towns in Italy. The others put one in mind of the chapels in the poorer country districts of Southern Germany. Pictures, white-wash covering bare walls, tawdry drapery about the altar, and images of wood and wax variously bedizened, are found in the interiors.

The treasury, the prison, and the public hospital are probably the next buildings you will notice. The last mentioned is a long red-coloured building, three storeys high, on the south side of a large open square. The ground in front of the hospital is laid out as a shrubbery, and

contains a number of sickly-looking cocoa-nut palms. There are two of these large squares in Mozambique ; and were they well filled with life they would be handsome ornaments to the city, but as they now are, overgrown with grass and neglected, they have only the air of decayed grandeur that belongs to the whole place. One of them is lined with fine trees, which bear, when in flower, a gorgeous scarlet blossom of very large size. It also contains a small monument, with something like a rusty orrery on the top. The column is of very modest pretensions, and is scarcely superior to some of those ancient crosses found in market towns of the home country. Close by, however, stands one of the peculiar institutions of Mozambique, also a monument in its way, but not likely to suggest pleasant emotions in the onlooker. It consists of a strong and heavy upright post of hard black wood built into a circle of stone. This is the public whipping-post for the punishment of refractory slaves. For although the law allows the master a pretty free discretionary use of the lash, it reserves to itself the extreme application of this torture ; and it will perform this duty for any master whose feelings may be too tender or whose arms may be too wearied to inflict further stripes. On passing this post one day after a public whipping, I noticed that the bed of masonry in which the pillar was built was well covered with blood.

As I stood looking at this erection for the first time, reflecting, with the assistance of all my anti-slavery notions and nurture, on the human agony of which this spot had often been the scene, my attention was called to another peculiarity of the place, also connected with slavery. Four

slaves, stout and strong, their skins glistening with perspiration, came staggering along at a brisk trot with a machila, in which reclined at ease a sickly-looking man of about thirty-five, with a heavy black moustache, and a still heavier countenance, whose extreme pallor seemed to say little in favour of the climate. In a country where wheeled carriages are rare curiosities, the machila is certainly an easy method of locomotion compared with trudging on foot under a blazing sun, especially when the body is enfeebled, and one is very much relaxed as to his knees, as Homer says, by frequent fevers. This conveyance is a sort of open palanquin, resembling a narrow sofa without sides, and in which you can sit or recline, and having an awning above. It is slung on a long strong pole, which, for what reason I know not, is almost invariably covered with the striped hide of the zebra. This is supposed to be the correct style, however shabby and battered the remainder of the conveyance may be.

But I think that Englishmen generally look with dislike on this means of travel. Your ease of body is destroyed by your unease of mind at the spectacle of four black immortals hurrying along under this heavy pole like beasts of burden in order to save your muscles. Once only was I carried in this fashion, when crossing the neck of land, six miles broad, which lies between the Zambesi and Quillimane rivers. I was unable to walk from long-continued fever, and I certainly thought the mode of conveyance extremely easy, as I was slung along at the rate of four and a half miles an hour, through the tall grass and mangoes and maize fields, on a cool and pleasant morning. But there is the drawback I have mentioned, which is

difficult to get over; at least it is so at first. It is no worse in its moral aspect than the Indian palanquin, except that in India men are free, and hire themselves; in Africa it is done by men to whom freedom is a thing unknown.

If we cross the square and turn downwards towards the beach of the inner harbour, we pass through the fish-market, and on the strand itself find a number of Arab dhows, with their high poops, low curved waists, and ascending prows. Boats of various sizes, in all states of repair and disrepair, also cumber the stony beach. As we proceed, the houses become more detached, the gardens more frequent, and just outside the last of the buildings we find ourselves on the edge of the cemetery of Mozambique. It has an interest to the English eye as the last resting-place of a few of our countrymen, chiefly officers and seamen. There, escaped at once from the fitful fever of life and the fever of Mozambique, they rest until that morn.

Crossing to the other side of the island which faces the ocean, and passing on the way several limestone quarries and lime-kilns, whose products form part of the small export trade of the island, we come upon the native town. The houses are all poor, as the houses of bondmen are apt to be; but they present the first indications of an advance to civilization. *There are no round huts.* These dwellings are either square or rectangular, even though they are only wattle-and-daub or sometimes even less, wattle and palm fronds. The streets are regularly laid out and some attempt at uniformity is made. This is, no doubt, an arrangement of the municipality, and not a spontaneous

effort of African progress. I have read of ethnographical divisions of the human family founded on the colour of the hair, beginning with the fair-haired races of the north, and terminating with the crisp woolly hair of those of Africa's great continent; but if we choose to adopt such trivial marks as specific distinctions of the genus homo, we may divide the whole family into two tribes—the dwellers in round houses and the dwellers in square ones. It seems almost universally characteristic of people still savage and barbarous to adopt a form of dwelling more or less spherical; and of civilized races to adopt a form more or less rectangular—round towers and turrets being the chief exceptions.

Close to the sea, under some old trees with gigantic limbs and ample breadth of shade, lies the fruit and ready provision market. In the early morning an immense variety of fruit is displayed. Cocoa-nuts, mangoes, pine-apples, plantains, bananas, cashew-nuts, custard-apples, popaws, oranges, limes, and many kinds of small fruits unknown to me are exposed for sale on the ground. Tobacco is also an important article of trade, and there are piles of cigarettes, made and in process of being made, waiting their purchasers. There are also cooked maize, cakes made of flour, of wheat, and of maize, fried meat and fried fish in great abundance for the native consumer. Baking and frying go on briskly till noon, or later, and there are among the crowds that gather there that hum of life, and that peculiar blandness of disposition, observable whenever men of any colour, black as well as white, are assembled for the purpose of being fed. Under the dense shade of these fine trees, and

with the perpetual breeze from the blue, glittering waters of the Indian Ocean, this Mozambique native restaurant is always cool and pleasant.

While staying at Mozambique, I paid some attention to the question of the alleged deterioration of the native African on the coast, as he comes into closer contact with European civilization. There is no doubt that he learns a good many new vices. Whether we are to blame most the pupil who learns or the teacher who gives the instruction, I leave the candid and unbiassed to decide. It is rather a severe judgment on the moral effects of our Christian civilization that contact with it should teach so much that neither Christianity nor morality can approve.

But I could not regard the difference in the state of the people as wholly in favour of unmitigated barbarism, pure and simple, of the interior tribes. On the coast, the people have more ideas, good and bad, in equal proportion. They speak more and walk more about, and the children certainly amuse themselves more in a greater variety of childish plays, learnt, no doubt, from Europeans. There is more industry; and they have learnt more fully the use and necessity for clothing. It is also a mark of improvement that there is less tatooing and disfiguring of the face by the frightful lip-ring in the city than in the native village.

If some of the simple virtues of the sunny side of savagedom have disappeared, and been replaced by some of the inevitable vices of civilization, this is but according to the ordinary rule of all reformations. There is a destructive as well as a constructive process; and the

former is always prior in time. If the native town does not present all the order and quiet and industry of a thoroughly civilized place,—if the streets are sometimes noisy, and brawls frequent,—yet there are fewer of those songs and dances, common in the interior, which pain the eye and ear; there is less of that senseless hand-clapping, heard in a native village from morning till night; and happily there is less also of that drumming which delights the African, but which, when long continued, sometimes makes night hideous, and seems at once to depress and madden the European.

But the feature, of all others, that struck me most painfully was not that of African savageism, but of European neglect. The native population of this Christian city may be, as I have said, about 8,000. So far as I know, there is not *a single agency of any kind whatsoever in existence having for its object the communication of Christian truth to them.* There may be, but I could not discover any effort of this nature put forth by any private individual, or by the Romish priests in the place.

Two forts guard this island city. The one at the south end of the island is small. It is built on a piece of rock standing a few feet above the water; and so fully is the area of the rock occupied by the building raised upon it, that on the sides facing the island there is barely room to clamber round between the walls of the fort and the sea. It is intended to guard a narrow passage between the island and the mainland, and as it lies out of sight of Mozambique, duty at that solitary place must afford much time for reflection, since it does not offer very abundant materials for observation.

At the extreme northern end of the island stands the fort of San Sebastian. Its works abut on three sides into the sea, and before the recent improvements in artillery it must have been a strong place. It can mount about seventy or eighty pieces of cannon ; but now on its grey old walls and loosened embrasures and parapets, Time, with unsparing finger, is placing his own peculiar mark.

When I first went to visit San Sebastian I endeavoured to gain admittance, though I had no written authority, but was stopped by a sentinel at the gate, who refused me permission, with the words that the Governor of the fort *nao da licencia*. I turned meekly and unresistingly away, and went towards the rocks close by the sea and sat down. Some soldiers were being drilled under the south-west wall of the fort. The day was very cold for the latitude, being sensibly about as cold as a September day at home—though not, of course, nearly so low in temperature. I could not resist the impressions and recollections of summer and autumn evenings among the rocks under the walls of a famous old city o'erhanging the sea—the old University City of St. Andrew's ; and forthwith my thoughts took a pleasant round among the days and friends of the past. Oh ! happy and kind alchemy of memory, which is ever transmuting the past into something wherewith to gladden and glorify the present, if the present has not gladness enough to satisfy the heart.

From the fort we return to the city, through a wide esplanade and grassy park, by a road lined with trees and running parallel to the shore. We pass through a small public garden which lies under the windows of the Governor-General's palace, and thus we have completed

the round of Mozambique, having arrived at the point from which we set out. There is, as I said, not much to see, and it would not long detain the sight-seeing traveller.

In the small garden, on moonlight evenings, a regimental band plays for the recreation of the inhabitants, who gather to hear the music and enjoy the soft, balmy air of the cool and glorious nights. The white part of the audience walk about the fine pier, or sit and converse under the small trees in the limited garden ; and the African crowd, moved as they always are to the depths of their souls by melody, even in its rudest forms, frequently add the enjoyment of a dance. The pieces performed are such selections from European composers as would form the programme on similar occasions at home—the performance being very much inferior. It cannot be said that the dances correspond to the music, or that waltzes and polkas are much known or practised. They would be best classed as country dances, with figures and time as yet altogether undescribed and unknown, except within the shores of Africa.

The chief population of the city is African, and of these, including those born on the island and brought from the mainland, there are not more than between 8,000 and 9,000. The garrison numbers about 200; and after these there are scarcely as many Portuguese altogether. Of other European foreigners there are very few in Mozambique ; none of our own countrymen—not even the ubiquitous Scot, supposed to be found wherever men do congregate, and even where they do not.

There are, or were, one or two German and one French commercial house, where European goods were sold in small quantities and at fabulous prices. A stranger

would at first suppose that there were no Europeans except Portuguese. But, after being some weeks in the place, I discovered that some articles of dress of which I was in want were sold by a German firm—and after a search of two hours I succeeded in discovering two live Germans in a balcony at the back of a large dull house overhanging the inner harbour. They were in their shirt sleeves, enjoying the afternoon breeze, smoking cigarettes, and, *more Germanico*, drinking beer.

The principal part of the retailing trade is in the hands of Banians, who bustle about and occupy almost exclusively two small streets for themselves. The chief Portuguese store of this description is Domingo's, of which you are certain to hear, and whither travellers and voyagers are sure to make their way first, to have their wants supplied. I had no occasion to buy much, but I became acquainted with the prices of goods as retailed in these shops, and this may interest some business man whose eye may fall on this page. They are the prices charged to English travellers, about whom there is on the continent of Europe, and also, I think, on the continent of Africa, a pleasant and widespread delusion that they are always burdened with more gold than they can carry with comfort to their persons.

Well, then, Englishmen are charged in Mozambique, for sugar of very ordinary description, thirty-two shillings per arroba of thirty-two pounds; for rice, two shillings and sixpence per arroba; for onions, the same weight, six shillings; small bowls of the coarsest crockery, with saucers, twelve shillings per dozen; common dinner plates, willow pattern, one shilling a piece; metal teaspoons, made at home, I should suppose, for sixpence a

dozen, are offered you at two for a shilling. The only article that seemed comparatively low in price was Bass's beer, which was sold at eighteen and twenty shillings a dozen, and French brandy at four shillings a bottle. For the liquor of Burton-on-Trent the chief purchasers are probably the cruisers of the slave squadron on the coast, when their own supplies run short.

So far as I am aware, there is not a single bookseller's shop, or any thing approaching thereto, in Mozambique. Literature is at a significant discount in Eastern Portuguese Africa. There is but one newspaper, published weekly, the *Mozambique Bulletin*. It is a Government paper; but while it serves the purpose of a gazette, and also for the publication of news, it occasionally does duty as a critical journal. While I was residing in the place, I found some previous numbers in which appeared a series of articles on Dr. Livingstone's first book, and in which the criticisms were more candid than complimentary, and more personal than polite. I need hardly say that neither the book nor the author stands very high in favour even amongst those who received him in a very friendly manner on his first journey. Amongst other statements, I remember one article dilated on the question if Dr. Livingstone thought the Portuguese were universally afflicted with *Myopia*, that they could discover nothing on their own territories without the assistance of others? Whatever answer may be given to this question, I must say that I myself thought the Portuguese singularly incurious about the regions in which they lived and which belong to them as a people.

Mozambique is said to be a most unhealthy place, even

though it is built on an island of coralline limestone, and though the vegetation is scant enough. Among the white population there are a certain cadaverous look and a gait enfeebled by many fevers, which tell their own tale, and justify the Portuguese proverb "*a clima peor que Mozambique*"—a climate worse than that of Mozambique—it being thought somewhat difficult to find. Yet the sanitary condition of the city would breed fevers in the most salubrious country under the sun. There are certainly as many smells in Mozambique assailing one's nostrils as Coleridge counted in Cologne. His biographers are undecided as to whether it was thirteen or seventy-three which he enumerated.

There is another cause which often renders those fevers more frequently fatal than they might be, and that is the generally high price of quinine, and the want of many of those comforts necessary for Europeans in a tropical country. I could not help observing that those who were under no necessity of exposing themselves much to the sun, and who could make a temperate use of a varied and nutritious diet, even with the addition of wine, invariably enjoyed better health. The poorer classes and the soldiers, whose limited pay prevents the use of such wholesome change, seemed to suffer most.

The climate has also been blamed for the morality of Mozambique—which, perhaps, is not worse than that of many other places—but it is said that the insecurity of life leads men to say, let us eat and drink and freely live, for to-morrow we may die. If the morality were first blamed, perhaps the exact sequence of causes and of events would be more accurately expressed.

Whatever be the full and complete explanation, there is a surprising lack of vigour in the administration of the country. So feeble seems the force of Portuguese civilization that, though it is now more than two hundred years since its first occupation of the country, beyond the towns and the city of Mozambique there are few traces of its presence. Little or nothing is known of the continent lying immediately inland from Mozambique itself. It is scarcely possible, and is certainly not reckoned safe, to proceed fifty miles inwards from the sea. Roads are almost unknown, except such narrow and winding footpaths as cover the whole area of Africa's vast continent. There is little import or export trade worthy of so large a territory and so long a seaboard. If we ask the reason why, there is perhaps one cause sufficient to explain this general langour and decay,—and that is the existence for a long period in the past of the export slave-trade. The labour that should have raised raw products which the civilized world would have been glad to buy, and which would have filled the hollow sides of many ships, and made the harbour of Mozambique cheerful with the sounds of commerce, has long since been carried off to the plantations of Brazil and Cuba. The population of the country, that should have been the chief consumers of manufactured goods brought from the busy looms of Britain and America, has been thinned by slaving wars and the slave-trade ; and that portion of the population that is left has been tutored in the evil lesson, which they were not slow to learn, of preying on their weakest neighbours. Hence, except in the existence of a few small towns on the coast,—several of them occupying prudent

positions on islands,—and along the line of the Zambesi as far as Tette, Portuguese rule, so far as any considerable effect and power is concerned, *stat nominis umbra*. There is little administration, and no development of the country.

There are certain great moral laws not categorically expressed among the sacred Ten, but very plainly implied therein, which nations as little as individuals can afford to despise. And one of these is—Thou shalt not export slaves and prosper. With nations, because their life is longer, the retribution is slower in making itself apparent. But the old Greek proverb of two thousand years ago is as true to-day as it was then—

> The mills of God grind slowly,
> But they grind exceeding small.

And within the last few years all the world has had sufficient proof that slavery in any form is ultimately, like all sin, a very costly business; its profits are not worth its penalties. The events of the last few years in the American Republic have declared, as plainly as events can, that God has other purposes about even degraded races, than that they should be used to enrich a dominant few, and fill the markets of the world with cheap Sea Island cotton, cheap Virginian tobacco, cheap Carolina rice.

Slavery will soon be a matter of history; and when it is so, it will be among the wonders of the history of mankind. Cuba will probably be its last stronghold. In Portuguese Eastern Africa the export slave-trade is already illegal, though it is still carried on. In nine years hence, in 1878, domestic slavery is also to be abolished, so

far as it can be, by a portario or decree of the Court of Lisbon. The edict was passed in 1858, and twenty years were given to the Portuguese on the East Coast to put their house in order. Even though there may be evasions of the law after that time, it is a great step when any trade or institution of a country is no longer countenanced by the law. Its authority is then gone. I asked an extensive owner of slaves, who had probably about two hundred and fifty, what they would do when 1878 arrived? His answer was characteristic of the country and the system. They might all be dead by that time; and if not, they would need to do the best they could. It is something when men loyally submit to the inevitable; but it would be better, in some cases, to anticipate its coming.

I am unwilling in this paper to say anything that would offend any Portuguese reader, should the eye of one such light on this page,—which is not impossible, as I know that the most of what has been written by recent travellers in Eastern Africa is pretty well known among those interested in that region. But I am afraid the facts of the case are too strong to admit of this being stated otherwise. I have heard some of the more energetic of the Portuguese in the country express themselves strongly on the decay of the province. I can say I have here consciously exaggerated nothing, nor set down aught in malice. There is no reason why I should do so. Among the Portuguese of Eastern Africa I experienced, as I have said, nothing but most unvaried kindness. I know that some, whose experience has been similar, have spoken contemptuously of this kindness on the part of the Portu-

guese, as if it were only meant to be a cover to their evil manner of holding the country, and to excuse the abomination of slavery. I cannot think so. They know that, as Englishmen, we detest and abhor the whole institution, and, knowing this, there is no reason compelling them to show us kindness when we are cast upon their coast. Instead of personal favours, they might as readily, and more naturally, exhibit towards us national antipathies; and this, I think, they hardly ever do. And I confess I feel ashamed of my countrymen when they greedily take, and never acknowledge, the generosity of men of other nations. When I arrived in the place I was an utter stranger, eight thousand miles from home, and with not ten pounds in my pocket. Many of my letters containing information of supplies went amissing, as postal communication with Central Africa is as yet imperfect.

There are no hotels in Mozambique. On landing I applied to Domingo, chief storekeeper and retail merchant, for a room in an old store. It is surprising what we come to regard as luxury after various experiences of travel. A watertight roof is luxury to a man who has slept the greater part of a year under the clouds. I have tried the Archduke Charles Hotel at Vienna, and the luxurious Langham in London, but I was more thankful to get into that uninhabited store than into either of those palatial mansions. I had occupied this strange lodging about a week when, on a Sunday afternoon, I was surprised to see at the door the horse of the Governor-General. Before I was aware, he had walked into the place, attended by his *aide*, a quiet pale-looking man. I was a little taken by storm, as I had only one chair, and that a broken one,

to offer His Excellency to sit down upon. His *aide* sat on one box and I on another. I was at a loss to understand the object of so distinguished a visitor to a lonely and impoverished Englishman living among a heap of boxes and casks of cowries. His Excellency politely said nothing about my dwelling, but talked on general subjects, and amongst others on colonization, which seemed to be a favourite topic. Next day an officer of the Commissariat called, and presented me with the keys of a large and airy house, containing a little, but sufficient, furniture, and this I occupied for several weeks till my departure. The kindly object of my distinguished visitor was evidently to make a delicate *reconnaisance*, and discover in what way he could most benefit a travel-worn stranger. This was but one of many other acts of kindness I received at the hands of this friendly man, to whom I bear the most grateful recollections. It may seem as if I have given too great prominence to this and similar incidents in my stay. There is a method in my madness. I think some of our countrymen have been ready to take help and acts of hospitality very freely, and been very slow to acknowledge them. There are two other names I must mention, that of Mr. John Soares, of Mozambique, and of Colonel Nunes, of Quillimane.

I am aware the then Governor-General of Mozambique has been accused of conniving at the slave-trade, and amassing a fortune thereby. It is considered by those who make this charge that it is not very difficult to get a man, even with a dislike to slavery, to shut his eyes for a little, if, on opening them again, ten or twenty thousand dollars shall be found on the table. This may be. There

may be depths of hypocrisy in human nature which no line of mine can ever fathom. But the impression I have is not entirely singular that no such connivance existed at that time.

By the end of April I was beginning to despair of being able to sail to the Cape, and had agreed for a passage in an Arab dhow to the Johanna Islands, there to await my chance of a vessel. But one afternoon a native came running into the house with the news that a British ship of war was sailing into the harbour. This seemed too good news to be true, and I refused to rise from my siesta till I asked and had been assured three times that such was the case. In an hour I was on board H.M. St. *Gorgon*, Captain John Wilson, well known at the Cape, and also not likely to be soon forgotten by the owners of slaving dhows on the East Coast, from the havoc he committed among them on the cruise which brought him at that time into Mozambique.

Next day I found myself sailing southwards to cooler latitudes, with a temperature steadily falling. The sea voyage restored my health, which had suffered from exposure and frequent fevers. In the end of May, I landed at Algoa Bay, and traversed the country from the Bashee to Cape Town. I had an opportunity of comparing British and Portuguese rule in South and Eastern Africa. The comparison, for many reasons, was entirely in favour of the former. But no stranger visiting South Africa can fail to be struck with one feature which is a great barrier in the way of the progress of the British Colony,—and that is the existence everywhere of a *vigorous local selfishness*. Time and effort are wasted in wordy

combats between East and West; and one portion of the country seems to regard its chief duty to be to prevent some other portion receiving the benefit of a bridge, a road, or a railway, if the same benefits are not promised at the same time to all portions alike. When this feature disappears, British South Africa will make more rapid progress in the development of its resources.

REVERENCE,

AND

THE WANT OF IT IN THIS COLONY.

" Let knowledge grow from more to more,
But more of reverence in us dwell ;
That mind and soul, according well,
May make one music as before,
But vaster ———"

When Wilhelm Meister entered the "great Institution" where he desired to place his son Felix, his attention was arrested by the singular gestures of the children. "The youngest laid their arms crosswise over their breasts, and looked cheerfully up to the sky; those of middle size held their hands on their backs, and looked smiling on the ground; the eldest stood with a frank and spirited air, their hands stretched down, they turned their heads to the right, and formed themselves into a line; whereas the others kept separate, each where he chanced to be." The Three, when asked by Meister for an explanation of these postures, said: "Well-formed, healthy children bring much into the world. One thing, at least, Nature does not give them, and yet it is on this one thing that all depends for making man in every point a man. If you can discover it yourself, speak out." Wilhelm was silent. Then the Three, after a suitable pause, exclaimed,

"*Reverence!*" Wilhelm hesitated. "Reverence!" cried they a second time. "All want it; perhaps you yourself." The three gestures, Wilhelm is further informed, are the expressions of a three-fold Reverence,—Reverence for what is above us; Reverence for what is under us; Reverence for that which is level with us. After some further explanation, Wilhelm exclaimed, "I see a glimpse of it!" It would be a happy thing for this Colony if the system of the Three could, in this respect, be introduced into all its educational institutions, whether the family, school, or college. If any man will observe, and reflect on what he observes, he will also have "a glimpse" of the value of reverence to character, and the all but utter absence of it in children. It is commonly remarked of the young people of all new countries, that they spring up suddenly into men and women, hurrying over the stage of boyhood and girlhood. To whatever other auxiliary causes this is to be attributed, it is to be traced, in a great measure, to a lack of the repressive, retarding, slowly maturing influence of reverence. The youth of new countries are eminently "fast." This is a modern word, which the modern life of old countries has added to our vocabulary. But the rapid running up into premature flower and seed is a more marked phenomenon of new communities than of old; because in the youth of freshly-planted societies is to be seen the abrupt development of the whole man-germ into manhood, which is too frequently nothing else but man-mockery. In Europe, some young men live riotously. Here, almost all children come of age at a leap. And this is largely owing to the absence of the salutary pressure of reverence upon the

mind and soul, as much as to anything else. Indeed, many of the other apparent causes of this prematurity would, if rightly examined, resolve itself into this one. The freedom of life, the feebleness of the cohesive power in society, the conditions favourable to individual development, rudeness of circumstance, the want of all that evidence of the genius and labour, the worth and dignity, of man which an ancient civilization has accumulated, the presence of rough, uncultured nature, and of rude, savage, and simple but degraded man,—all these characteristics of new countries are but so many reasons why there is so little reverence in their young people. The charm and usefulness of a long spring time are wanting, because this retarding force is absent. There is so little reverence, because there is so little in the conditions of life to excite it,—so much less than in those old lands where authority, order, achievement, example, widening precedent, a long-inherited sentiment, and the mighty works of successive generations unite to throw a shadow on the young mind, in which it slowly grows, and mellows as it ripens. This absence of circumstances favourable to the dawn of reverence imposes a responsibility upon education. The fanciful symbolism of the Three, which, in some respects, looks like a school edition of Ritualism, may suggest nothing for imitation ; but the idea of teaching reverence by a well-considered machinery of means is worthy grave attention. What this machinery is to be is a difficult question. The professor who would propound a solution, based upon a comprehension of the nature of children, and of the importance of reverence as a human affection, whether natural or induced, would deserve the

name and reputation of the founder of the educational system best suited to a colony. It is possible that the centralization of our higher schools, the substitution of one or two great institutions for the present many small ones, would be friendly to the natural growth of circumstances favourable to the planting and nursing of a reverent temper. If any institution similar, as to its organization and equipment, to a great public school in England could by united effort be reproduced here, part of the desirable work would be provided for. A building of some pretence to magnificence, offices of dignity, a staff of earnest, scholarly, masterful gentlemen, a rigid but humane discipline, badges of distinction, and above all a college chapel, bright, vivacious, inspiriting liturgical service, and a priest with eyes and voice like Arnold's, would work a revolution in the spirit of boys trained under such influences. The sense of size, labour, and skill in human work,—the consciousness of a rule for life other than individual wilfulness, of the claims of others, of the obligations of religion, would have a chance of a beginning amidst such surroundings. At present, division and littleness deprive our schools of all dignity. There is nothing in the plain, scanty building, the mean endowments, the meagre staff, and the surface discipline of our score of colleges and thousand and one academies, seminaries, gymnasiums, and establishments to counteract the unimpressive circumstances of general colonial life. To give magnitude and fullness to our educational institutions by centralization would, however, do but little more than favour reverence when its seed had been sown. The planting and direct culture would still have to be provided

for; and it would be necessary for educators to consider by what means that which the Three declared to be not natural could best be implanted. Ceremony, secrecy, mystic symbolism are not likely to form part of a school course in these days. But there never was a time when there was a firmer belief in the power of educational system to form the character and to remedy natural defect. The one case of Laura Bridgman shows to what a marvellous extent the first perception and the first consciousness, apparently the very elements of mind and soul, may be created, or summoned into life and light out of a blank and blind chaos. There is every reason to suppose that, if the conditions of education were improved by massing our institutions, the machinery of education would be improved also, and that more subtle, searching, and comprehensive influences would be brought into play. So that if the importance of reverence to individual and national character were recognized by professors, there would be the discovery and the use of the discipline necessary to excite and nurture it. Less of dividedness and more of centralization, less of smallness and more of breadth, less of poverty and more of pomp and circumstance, would favour perfection in the science and art of education, and all together would tend to the growth of reverential habit, as well as of all other excellences.

It is pretty certain that if reverence be not grafted on the youth of a colony, adult life will, as a rule, be without it. A system of discipline, and a set of artificial circumstances, may be invented for the boy and be applied to his senses and to all his faculties, with a view to a particular result. But for the man there is no artificial system of discipline;

outside life is everything to him. And in a new country —a modern settlement—what is it? Everything is rude, elemental, unimpressive. Nor is it that colonial circumstance is marked by simplicity. There is a bareness which is not simplicity. There is nothing beautiful or dignified in its simplicity which is not the result of combination, harmony, and great labour to hide complexity of parts in unity of result. There is more of that true simplicity which finds its way into the mind, and fills it with awe, in the jointed and piled masonry of the pyramids than in the huddled cairn,—much more in the dome of St. Peter's or St. Paul's than in the rude cupola of a Kafir's hut,—much more in the beautiful statue which consumed a lifetime in its perfecting than in the log which a savage hews and hacks into shape with a few blows. Similarly, there is more of that simplicity which imparts dignity to individual and social character in the conditions of an ancient and still enduring civilization than in the phase of a modern settlement. There is, indeed, no simplicity without much art,—no simplicity without much culture. Paris, or London, has more simplicity in its circumstance, its life, its manners, than has New York. The absence of number or of quantity is not essential to simplicity; yet no error is more common than this; and in no respect more so than in relation to the conditions of human life. An old-world man fancies that he will find simplicity in the new world. The man of the town believes enthusiastically in the simplicity of the village. The villager sees in the solitariness of the farm a simplicity still severer than his own. And it is too generally supposed that this simplicity of

circumstance, which is all but wholly fictitious, is conducive to simplicity of character,—a conclusion which is as erroneous as the premises from which it is drawn. It is a mistake to think that because the fittings and furniture of colonial life are bare and scant they are favourable to the severer and graver virtues, and, above all, of reverence. And it is the recognition of this which makes it all the more necessary that the development of this great quality of a manly character should be one of the tasks of education. The habit once formed under the influence of a wise artifice would, in whatever circumstance, find the means of its growth. The youth trained by an adjusted discipline to regard all outward things, whether above, beneath, or on his level, as having claims upon him not to be disregarded, would, on passing from a school or college into the unimpressive life of a colony, discover on all sides objects to revere.

If the colonist of the day, untrained by education, be observed in his relations to the various departments of life, it will be seen how defective he is in this feeling of reverence, and how unfavourable to its development are his surroundings. It may be said that the unfriendliness of his circumstances may be taken not only to account for his deficiency in this respect, but also to excuse or justify it. Or it may be pleaded that if there be little or nothing to excite reverence, there is no need for it. But with this, as with all other virtues, the absence of that which favours it is in itself a reason for its culture. It is one of the fruitful errors of a newly-settled people to think that character is at liberty to conform itself to circumstance,—to be rude and selfish because nature and

conditions are rude, and because society gives way to self. If the general experience of civilized man has proved any possible human feeling to be in itself good, it ought to be developed and nurtured, let the outer life be what it may. It is no longer thought that the history of the Jews is too sacred to be used like any other history, for purposes of illustration, and the Decalogue may, therefore, be referred to as showing how supremely important the great Lawgiver held it to be to cultivate reverence in his followers at a time when they were about to become colonists, and enter on a new national life amidst circumstances especially hostile to it. All of the ten commandments ordain reverence—reverence for that which was above, under, and level to the emigrant Jews,—reverence for the objects and means of religion, for the family, for life, for property, for personal and relative rights. This obligation was laid upon the minds and hearts of the people by elaborate ceremony, impressed by lofty mysteries, and enforced by penalty, when they were about to pass slowly through a wilderness to a country only to be possessed and settled at the cost of many wars. This is but an illustration as it is here employed, and nothing more. But it suggests, if it does not help to prove, that the absence of circumstances favourable to reverence is not to be taken as a reason why it should be neglected as if it were unnecessary. In referring to the unimpressiveness of the conditions of life, we do but give one of the chief arguments for the intentional and systematic cultivation of a virtue so much disregarded in this as in other colonies.

As Wilhelm Meister passed through the district which lay about the institution he sought, "he noticed, with

new surprise, that the farther they advanced, a vocal melody more and more sounded towards him from the fields. Whatever the boys might be engaged with, whatever labour they were carrying on, they accompanied it with singing." Longfellow is not an authority equal to Goethe, but he has pretty much the same idea in "The Building of the Ship":

> Build me straight, O worthy Master!
> Staunch and strong, a goodly vessel.
>
> . . . . . .
>
> The merchant's word
> Delighted the Master heard;
> For his heart was in his work, and the heart
> Giveth grace unto every art.

The idea in both these passages is, that there is that in all labour, whether of the field or the workshop, which may have a cheerful reverence paid to it. There is at the present day a custom in India which expresses the very same opinion in a way which is thoroughly Oriental, and therefore extravagant. On a certain day in the year each man, by the force of an Eastern imagination, and with the freedom of an Eastern piety, turns the implement which is the symbol of his craft, and the chief means of his support, into a minor deity, and worships it with the sacrifice of flowers and with ablutions. The learned man takes his book, the clerk his pen, the soldier his sword, the smith his hammer, the weaver his shuttle, the field labourer his plough, and going with gay solemnity to the water-side, each instrument, decorated with garlands and sanctified with water, becomes transfigured, sacred, divine, worthy of worship. This is an

Oriental and Pagan way of saying that a joyous reverence may well be given to the occupations which are so necessary to life and by which so much of lifetime is consumed. The disciples of the Three sang hymns as they toiled, the ship-builder gave his heart to his work, and the Pagan Hindoo worshipped the symbol of his craft,—all illustrating, as we say, the truth that reverence is due to labour. But the best evidence that such duty is rendered is the evidence of good works. The song of the digger is nothing unless it giveth rhythm and earnest force to the stroke of the spade; the heart of the ship-master may as well be elsewhere unless it giveth grace unto the art; so, also, the Pagan's worship is worthless as it is extravagant unless the worshipped tool is used with a tender touch and an honest purpose. Good work shows reverence for work, and a just appreciation of the great place work has in the economy and discipline of life. In this Colony work is notoriously bad. It is bad because it is not highly considered; and being bad it excites no respect. Of late improvement may have dawned, but as yet the light of intelligence has to struggle with the dense darkness in the midst of which our ignorant industries have been groping. There is scarcely a department of production that hitherto has not brought the Colony into disrepute. The gifts of nature and the acquisitions of tardy enterprise are treated with a rude, slovenly, blind hand, spoiling everything it touches. This is not the place for a description of the almost brutal methods of culture and manufacture which have been and still are too much in vogue amongst us. To do so would be but to repeat a tale told a hundred times in the newspapers, and reiterated

to weariness at agricultural dinners. It would, however, be unpardonable to pass by the sad proof of a want of that thoughtfulness, that sensitive regard to the relations of all acts—which is the very substance of reverence, —thrust upon the public attention by the late calamitous fires. To burn the grass is one of the labours of our agriculture which may be necessary. If so, it not the less on that account involves, or ought to involve, great responsibility. And yet on a day of intense heat and much wind, at a time when herb and tree are like tinder, and in the neighbourhood of great forests and prosperous homesteads, the brand is flung about as if the work, which a man might well begin upon his knees in fear and trembling, were mere heedless sport. The vast, unfenced, sparsely occupied, poorly fertilized lands of a new country tempt the husbandman to a savage agriculture which has little or no regard for beauty in nature, or right in property, or sacredness in life.

It can scarcely be doubted that the transfer of the rougher work of the Colony to the natives is a reason why labour of that kind is treated by the dominant race with slight respect. This has always been the case in countries in which any special tasks have been imposed on a subject people, whether slaves, captives, helots, villeins, pariahs, coolies, or conquered savages. The occupations of these despised people fall into contempt, and make it shameful to engage in them. All history, whether ancient or modern, teems with examples of this. In the present day, the Southern States of America afford a striking illustration of the rapidity with which a race accustomed to hold industry and honest toil in good

repute can have its ancestral habits wholly changed by the presence of an abject people on whom the hard work of the country is imposed. When, under the Austrian Kings of Spain, most of the mechanical crafts and the various branches of commerce fell into the hands of foreign immigrants, the Spaniard, although not long before celebrated for his skill in some manufactures, thought it a disgrace to soil his fingers with Segovian cloths or take interest for his wasting capital. In India there is no Brahmin but would deem himself to have lost caste were he to carve the sacred image to which he is ready to bow down and worship as his god. This degradation of labour by its association with a degraded class is inevitable, and is to be modified only by a removal, as far as possible, of artificial difference between classes. The abolition of slavery in America will have a direct influence on the consideration in which all manner of work is held there. The labourer being no longer a slave, his labour is not slavish. In this Colony, slavery has long been abolished, and that source of danger to the dignity of work is removed. But our labouring class is still savage, ignorant, barbarous, and heathen, and as long as this is the case labour will be debased in the eyes of the colonist. This has its remedy in a properly adapted education. There are some who think that education spoils the native for labour. This, in some cases, arises from possibly wrong systems of training in which natives have been taught, or it arises from narrow views. At all events, it is certainly true that brutal, untaught, wild men spoil the colonist for labour. The tendency of this is unquestionably towards irreverence for work. This effect in its present stage of

growth may not be apparent to the unobservant eye, but it exists and will display itself more and more unless the remedies are applied. We can pursue this subject no further; but it may be said that the power of association to affect the estimate in which anything is held is nowhere more strikingly to be seen than in the department of human labour. Let any work, no matter how difficult and beautiful in itself, be assigned to a despised class, and it becomes despicable. Let any work, no matter how coarse, become the monopoly of a privileged class, as is the case with the farrier's craft amongst some Mussulmans, and it becomes dignified. Modifying the thought somewhat, but not essentially, it is found that the association of work with loftiness of character, the unloosing of a shoe's latchet will transcend the sense of worth; while the consciousness of "the great Taskmaster's eye" will give a living meaning to George Herbert's verse:

> A servant with this clause
> Makes drudgery divine;
> Who sweeps a room as for Thy laws,
> Makes that and the action fine.

To charge the Colony with a want of reverence for the fine arts would be preposterous. There can be no regard for that which can scarcely be said to have an existence. Perhaps music may be held to be an exception. We believe the ability to appreciate the great masters, skill in execution, and even talent for original composition are present in the Colony; while no artiste of any merit visits the Cape and is not understood. Of late, creditable attempts have been made in more towns than one to pay careful and practical homage to the master-pieces of

Handel and Mendelssohn. There are few villages that have not some musical organization. We have been assured by the managers of professional companies that in some of the obscurer towns, partly inhabited by foreigners, there is evidence of much musical culture. Most undoubtedly there is no country in which there are more pianos. There is a Broadwood, a Collard, or an Allison in almost every house and on well-nigh every farm. At the hours of morning practice, which extend from sunrise to noon, there is no open window through which a torrent of mingled melody and harmony does not rush, and the air is more than tremulous with the vibrations of twice ten thousand keys. In whatsoever house there is no piano, there is an accordion, while on the Frontier there is not a Kafir who has not a Jew's harp. In the Eastern garrison towns, so enthusiastic is the reverence paid by the natives to martial music, that a crowd of dancers attends the regimental bands along the whole line of the Sunday march to church. To give some account of the state of musical culture in the Colony would be worth the while of some one well versed in the subject.

It would be wrong to say that the Colony has had no painters. On the other hand, it would be wrong to say that the Colony has greatly valued those it has had. Bowler is seeking fortune at Mauritius. I'ons is making no fortune at Graham's Town. Nor can it be said that these artists have had no recommendation from merit. I'ons has succeeded wonderfully in expressing the fullness and freshness of savage life in the face of the Kafir, and his work, if proper respect be paid to it, will preserve the faithful portraiture of races which in the course of time

will be found in history and picture alone. The water-colour landscapes and the marine sketches of Bowler are, for the most part, faithful copies of some of the finest scenery our coast, river, and mountain can give. His "Wolf River by Moonlight" is worthy reverent admiration for the artistic truthfulness and sympathy with which it represents a beautiful scene beautifully, so that any common eye might see its meaning. The Colony has also some amateurs whom it might well value, but whose names would have but little signification were we to mention them, as their works are but little known. There are not wanting those who can love and understand this art, and by some means or other a few good paintings have found their way to the Colony, and are understood. Cape Town, by levying contributions on private collections, is able to form a respectable art exhibition, from which great names are not wholly absent. And there are those who can write a fair criticism, discriminating faults from beauties, and thus help to the growth of an intelligent taste. It must not be forgotten, also, that there has been at least one attempt to establish a School of Art; and it would be irreverent on our part to overlook the fact that we have photographic artists who are really worthy of that name, if the study of the laws of their craft and a determination to master its agencies, with a view to truth and taste in the expression of life as well as form, entitle them to the distinction. Still, for all this, and notwithstanding that photographs abound in the Colony more plentifully than even pianos, it would be an exaggeration to say that art is present; and such being the case, it would be unreasonable to complain that a reverence for it

is absent. The time may come when more of our youth may be able to visit the renowned galleries and studios of Europe, and bring back with them, if not inspiration, yet the memory of a great glory and a dissatisfying sense of the bareness of colonial life. This regretful recollection and this consciousness of want may, when wealth—possessed by more hands, accumulated in larger sums, and placed at the disposal of more cultured and liberal minds—has the power to obey desire, lead to the exchange of our gold for some of the precious products of the old-world art-genius; and thus the knowledge of what is meant by a picture and by painting may dawn upon the Colony, and the love of them may even suggest endeavour. With skies and an atmosphere like ours, mountains that hold both light and shade in charmed masses upon their sides, plains enamelled with fair flowers, bays curved as the line of beauty and flooded with bright water, long lines of tumbling surf, and an ocean on either side, it cannot be said that Nature is niggard of her lessons. All that is wanted is the intervention of the teacher to show how the lesson is to be learnt. A broad, truthful work from a great hand would do this most effectually.

Of sculpture the Colony possesses fewer specimens than of painting. Sir George Grey is our only statue. There is an obelisk at Port Elizabeth. A fountain stands hard by the Cathedral of St. George's at Graham's Town. The massive pulpit of the Dutch Reformed Church at Cape Town is guarded by two huge lions carved in wood, and that of the Lutheran Church rests on the brawny shoulders of two giants in mahogany. The catalogue is scanty. The influence of the works themselves is not great.

Reverence seeks the shade, but is not cherished by theirs. The lions and the giants, being where they are, may, by the confusions which are sometimes occasioned by association, be perchance mistaken for objects of public worship. No such accident invests either the statue, the obelisk, or the fountain with any chance of respect, and in themselves these works, though rare, are not wonderful. The Colony knows less of sculpture than of painting. And yet, unless savage life should speedily cease to be savage, and clothe itself in the squalid rags of civilization, there are few countries where the human figure could be studied to more advantage than here. The Kafir, like the ancient Greek, presents, not in the studio only, but in the freedom of every-day life, models of fineness in form and grace in action, while his kaross or blanket falls in rounded, sweeping lines from the shoulder. It would be worth the while of our modern sculptors to take Kafirland, as well as Rome, within their tours. Were the chisel once at work here in the hands of a genius, this art would, if second-hand clothes were prohibited on the east of the Kei, have rare chances of flourishing and making itself respected.

The great modern art critic says: "There are only two fine arts possible to the human race, sculpture and painting. What we call architecture is only the association of these in noble masses, or the placing them in fit places. All architecture other than this is mere *building*." In another of his works he says that the function of architecture is, as far as may be, to tell us about that Nature which lies remote from towns; "to possess us with memories of her quietness; to be solemn and full of tenderness,

like her, and rich in portraitures of her; full of delicate imagery of the flowers we can no more gather, and of the living creatures now far away from us in their own solitude." If this be architecture, and these be its functions, there are few kinds of human work more worthy of reverence; but at the same time it must be confessed that the Colony has yet to possess it, and therefore knows nothing of its influences. We have "mere *building*," but no architecture. Architects there are who are doing honest work with such opportunity and material as they have; but their scope is narrow and their successes are few. Perhaps the only notable thing in this dual art in the Colony is the ceiling of the great Dutch Church at Cape Town. The space is vast; and in a huge crowded city of narrow streets and extended masses of masonry, it would do what Ruskin says architecture should do,—it would be a symbol of the overarch and spread of the sky, of which the narrow, interminable streets and the smoky atmosphere of big towns allow but scanty glimpses. Cape Town streets are not very wide, but the town itself is small, and a few minutes' walk from its most crowded part brings the whole heavens to view. As a substitute for Nature, therefore, the ceiling is not wanted; and, if the truth be told, the architect himself, who lived long before Ruskin began to explain the meaning and use of art, had no thought of imitating the span of the firmament. He aimed at a human work of great magnitude when compared with other human works of the kind, and he hoped to succeed in striking the imagination and producing a feeling of reverence suitable to the uses of the place. The appearance of this building from with-

out is mean and unimpressive, and no injury is done to any æsthetic interest by hiding a bald side from view by a row of modern offices. It is possible, however, that the designer thought that it would be a useless expenditure of skill and means to attempt any display of exterior grandeur on a site with such a background as Table Mountain. Even St. Paul's would look poor and dwarfed beneath that mighty work of Nature's masonry, about whose base all Cape Town lies like a huddled landslip—the mere crumbling of a buttress. The architect of the Dutch Reformed Church, with its wide, pillarless ceiling, understood, after all, where to put forth his art with the best chance of getting men to honour it. And in this he suggests the lesson that if art is to be reverenced, it may endeavour to represent Nature when she is absent, but must not compete with her while she is present.

It would be unjust to say that there is but little reverence in the Colony for Law. It may, indeed, be questioned whether there is any free people amongst whom the authority of law is more regarded; although it has been declared by some, who have a right to speak on such a subject, that the principles of equity, truthfulness, and honesty, on which all righteous law is founded, are not held in equal respect. Let this be as it may, it is undoubtedly the case that, although the executive arm is comparatively feeble, the decisions of law are never resisted, and notwithstanding the extraordinary facilities of escape, they are resorted to but seldom. There is no lawlessness, except amongst the natives in the remote outskirts of society. A magistrate with a policeman or

two will preserve order in border districts a thousand miles from the seat of Government. That is to say, the people of those distant places will respect order and authority in the mere office of the magistrate. This is a testimony which, if it be true, proves an excellence of no mean class.

Patriotism may be said to be the highest form of reverence for the State; and as yet there is but little of it in this Colony. One possible reason of this is the fact that the Cape is a Colony—a dependency on a distant country, with no distinctly separate national life. In recognizing this we are not advancing it as a motive for desiring independence. The advantages of our present connection with Great Britain outweigh the disadvantages, whatever they may be. Disentangling it from any question of this kind, the influence of the fact referred to on the public regard for the State is worth a passing note. Is it not the case that there is a stronger sense of the claims of all that is meant by the phrase "my country" in the Orange Free State than in either of the British South African Colonies? That there are some annexationists does but bring out into bolder relief the stubborn patriotism of the majority. Another cause of the feebleness of the national feeling is the dividedness of the population. It will necessarily take time to weld together the peoples and tongues of British South Africa, so as to make them owe and beget a reverent love of the State—the form of society which includes and unites all classes, institutions, interests, and individuals. A third cause may be sought for in the fact that a British colony is a democracy. All democracies, in some important respects,

favour the development of personal interests or selfishness. The individualizing forces are stronger than the uniting forces. In a colony of large area and scanty population this tendency becomes more pronounced. In such a case the action towards union, when there is any, and the attachments and passions attending it, stop short, for the most part, at "localism," a term which is well understood in this Colony. And if there is but little reverence for the State, neither is there much for such political institutions as we have. Whether a reform in the development theory would have the effect of increasing or diminishing the public respect for Government is a moot question, which it would be out of place to discuss here. It may, however, be said that no greater misfortune can happen to a country than for its people to hold political office and function in contempt.

Passing on to another topic, would it be wrong to consider a reverence for all life, and especially for human life, to be an essential part of modern civilization? We say modern civilization, because it is a notorious fact of history that some of the most cultured and, in some respects, most fastidious peoples of antiquity were coldly or cruelly indifferent to suffering, utterly reckless of the lives of others, and ignorant of the passion of humanity. In modern times, and in the foremost countries, law as well as custom has taken the dumb beast under its protection, while the growing reverence for human life has been shown in the abolition of coarse and dangerous sports, the repression of duelling, the prohibition of trades like that of the chimney-sweep, the restrictions on the employment of children

in factories, the multiplication of hospitals, the better regulation of asylums, the less frequent resort to corporal punishment in both army and navy, the purging of our criminal law of its once shameful rigours, the privacy with which capital executions are invested, and the increasing influence of justice, and desire for peace in the councils of nations. This high regard for the great and precious principle and fact of life in all creatures is one of the glories of the time, and it may well awaken anxiety in any people if they have reason to think that they have about them conditions unfavourable to this excellence. As long as slavery existed in the United States, and as long as certain laws relating to the treatment of slaves and narrowing their rights prevailed, there were in that great country circumstances which, while they lasted, hardened the heart of the South, and which, had they not been removed, would at this moment be weakening the bonds of sympathy between man and man, and turning the wide consciousness of humanity into the petty but fierce pride of a privileged class. It is, indeed, a mistake to suppose that the want of reverence for the body and life of a slave has no influence on that feeling in reference to men not slaves. Familiarity with any form of cruelty to any creature in time does its work on the whole nature, and influences the individual in all his relations. But it is not our duty to consider other countries. It will, however, be readily understood why we have referred to America, instead of at once examining conditions in South Africa. There is something in the circumstances occasioned by the presence of the African races here which may be said to be analogous

to the circumstances occasioned by slavery in the Southern States. The word "nigger" condenses and includes nearly all that we wish to suggest. An inferior, naturally separated, savage race, by what it is and by what it is not, by what it does and by what it omits, tempts the colonists to a contempt for life which, let it be as degraded as it may, is still human. This is seen most markedly in the outskirts of our settlements. It is notorious that in the distant borders of the outlying States, where law is weak and treaties are of no avail, to shoot a black man is little less than a piece of sport. Killing is no murder in such a case. Nearer to the heart of authority, custom and opinion are more under restraint; but it is not too much to say that throughout the whole of South Africa the reverence for human life is endangered by the contact of colonists with natives. Kafir wars, Basuto pillages, Koranna inraids, and the thievish habits of these people, increase the aversion and give bitterness to the contempt with which the white man regards the black, and make him less regardful of the act of taking life. It must in justice be said that it is not often that the settlers in the older colonies are publicly known to commit cruelties on the natives, or wantonly to inflict death. Nor can our laws be charged with any inequality whatsoever in matters relating to the person or to life. But while this is gladly allowed, it would be wrong—most injurious to national manners—to overlook the probable influence of conditions which prevail in the South African Colonies more than in any other dependency of the British Crown. The reasons for a humane policy towards the native races are to be sought not only in

the records of the Aborigines' Protection Society, but also in the lessons of history and in the immutable laws on which all true excellence, whether of personal or national character, is founded.

In considering a subject of this nature there is a danger of overstepping reasonable limits and forcing an idea into departments of life to which it may have no special relation. It may be that a want of reverence for religion is not one of the peculiar faults of this Colony. This is a question which may be left undecided by us. It may, however, be as well to glance at one or two things which may be presumed to be unfavourable to the exercise of reverence. Were it possible, as we think it is, to distinguish between a reverence for religion and the religious sentiment itself, it would not be difficult to show that the absence of a State Church here, as in other British Colonies, has the tendency to lessen the respect for religion viewed as a part of national manners. A State Church is clothed with authority and is rich in accessories. It has the means of adorning itself with learning and of arming itself with social power. Accumulating wealth from the public estate and private benevolence, it presents itself everywhere to the eye in the grandeur of its temples and the pomp and power of its chief priests, while its lofty and assured position sheds a certain dignity upon the meanest of its fanes and the humblest of its ministers. All this has its influence, not only upon those who are themselves the adherents of this favoured Church, but also on the whole circle of society, including those who do not conform as well as those who do. There can be but little doubt that the decent regard which in England is

paid to the Tabernacle is the offspring of the respect which has been commanded for centuries by the massive and long-enduring glories of the Cathedral. Here there is no State Church, and, whatever advantages a perfect equality of religious societies may be supposed to secure, there is the disadvantage to national manners arising out of the absence of one of the most powerful causes of a reverence for, at least, the framework of religion. This disadvantage is not glaringly apparent in this Colony at present. But it is reasonable to suppose that, in the course of time, similar effects will be produced here to those which in the United States have followed the absence of a State Church. It will be observed that the question of the merits of the State Church system in relation to either religion or morals is avoided, except so far as manners may mean morals. We have said there is no State Church in South Africa. There is, however, Schedule C. Now, Schedule C is a delicate subject, and must in these pages, at least, be handled with tenderness. Let it be assumed that the ecclesiastical grants are of importance to the churches which enjoy them, of importance to religious instruction, and of importance in whatever other way that their advocates maintain,—what is their relation to the sentiment of reverence for religion? Were it in the nature of things—ecclesiastical, social, and political—possible that Schedule C could do its work of distribution without observation, it might, by helping to increase the revenue of public worship, and by thus adding to the respectability of the endowed churches, be friendly to the maintenance of reverence. But this unfortunate Schedule drags so much of religion as may be

associated with it into the arena of political discussion every year. It places religion in the pillory of the hustings and on the floor of both Houses, where around it rage all the passions of ecclesiastico-political strife,—passions which are undignified and petty, whatever may be the seriousness and magnitude of the principles involved in the quarrel. This state of things cannot promote reverence for religion, although we by no means say that on that account the ecclesiastical grants must be abandoned.

The Cape is not a little remarkable for the multiplicity of its religions and ecclesiastical sects. The influence the pervading presence of Heathenism and the existence of Mohammedanism at some of our chief towns may have on the national regard for religion, and especially for the Christian religion, is a question too subtle for us. It is, we think, matter of experience that such a condition of things as that we have here is pretty certain to produce either exclusiveness and the persecuting spirit, or a certain freedom of manner towards religion bordering on laxity, and sometimes going to the length of indifference. In those great Asiatic countries where small bodies of Europeans live in the heart of vast pagan communities, whose religions are as elaborate as their civilizations, these opposite tendencies are very marked. Hindooism, for instance, causes some of its Christian rulers to be bigots, while others it causes to be latitudinarians. The presence of a religion in which they do not believe, but in which the great majority about them do most earnestly believe, —a religion which has in it much that is good, and which, whether good or bad, is a splendid product of the human mind,—favours what is known by the name of "liberal-

ism" in religion, which is not always accompanied by a reverence for their own inherited faith. Heathenism and Mohammedanism in South Africa can scarcely be suspected of having any such decided influence, but that they should exert some influence of the kind is at least possible. We turn from this speculation to facts and influences whose tendencies as well as whose character can be readily understood. Nowhere, except perhaps in America, do Christian sects rejoice in a greater variety than in this Colony. The two nationalities—Dutch and English—preserve sacredly their peculiar ecclesiastical institutions, and the teeming womb of Protestantism in Great Britain and Holland has given to this scanty community all its motley births. Then, also, we have Presbyterianism from Scotland and Roman Catholicism from Ireland, while France, Germany, Scandinavia, and America have contributed by their missions to give to the white and seamless garment of Christ the look of a coat of many colours and of many patches. Private judgment, independent thought, the authority of the personal conscience, toleration, are phrases beyond criticism, as they are precious things that cannot be assailed. They are of that great value in themselves that they are not to be endangered by any discovery that in their operations and embodiment they are attended by certain drawbacks. Yet these drawbacks ought to be noted and removed as far as possible. Division, so far as it lessens in anything the quantity of size, lessens that which commands respect. Other things being present, a Christian Society, comprehending all within its ample circle, would impress the imagination and ensure reverence in a degree unknown under the

present circumstances of perplexing division. The unity of the Faith is a much grander thing than variety of opinion, however the various facets of this much-lauded jewel may sparkle and glow with irridescent rays. It is, not, however, the simple facts of division which so much militate against a reverence for religion as the rivalries, jealousies, and uncharitableness which are the too common elements of sectarian life, and which prevail the more in inverse proportion to the smallness of the disjointed community. Few things make religion look more unlovely and less dignified than the squabbles of schools, the hatred between parties, and the strife of sects. The Christian clansman may respect religion in his own Church, but he despises it in another; and thus his reverence is mixed with the base alloy of selfishness, and, in fact, ceases to be reverence, which in its very essence is the subordination of self to the object venerated. No charge is made against any one Church, or any group of Churches, in this Colony. We have used generalities in order to avoid what is not intended. The object of these remarks is to ask attention to the almost certain influence of the remarkable number of Churches in this country.

There is another consideration to be advanced in connection with reverence for religion, which, however difficult in itself, cannot well be avoided. We refer to the influence of all that can only be expressed by "Colensoism,"—not, however, to the whole influence of that fact of the day and of our place, but to a lateral influence which it is possibly calculated to exert. It is the singular lot of British South Africa to be the home of the man and the

ecclesiastic who in modern times has given the most practical effect to the great Protestant principle of free private judgment in matters deemed sacred. It is no part of our duty to value the methods or the results of Bishop Colenso's labours. There is no necessity for us to call him heretic, or to call him reformer,—to condemn or to applaud. With us the task is to see whether the fact of the celebrated critic being one of us, and doing his work here, taken together with the incidents of the ecclesiastical struggle in which he is the central figure, and by which he naturally attracts to himself some sympathy and much ardent partizanship, is not likely to have an effect not wholly favourable on the popular regard for religion. The question is not whether the studies, investigations, and conclusions of the Bishop are likely to make him irreverent. In all probability they do not. We should regret to think they did. In an essay personal experience is admissible, and the writer in this case would be sorry to erase the impressions of his youth and the knowledge of after years concerning this great man—great, at any rate. Following him at a public school, we found the name of "John William Colenso" printed in gilded letters on a tablet which included the names of all the scholars who had won honours and were worthy of emulation. Since then we have heard him teach in his Cathedral with lips breathing loving kindness to man and devotion to God, and have seen the modest palace 'midst the tumbled hills eastward from Maritzburg, where, with an untiring and unambitious zeal, he spent so much of his life in the humble but arduous work of a mere missionary. And we find

it difficult to suppose otherwise than that, whatever his work, his motives are honest and unselfish, and his spirit towards religion devout, devoted, and full of worship. We are insinuating nothing against the author, nor against his books. Neither are we attempting to consider whether the tendency of his writings is to foster irreverence among those who are themselves able to judge them by the test of accumulated learning and sound, manly reason, and who may accept them as contributions to human discovery in the Divine and, therefore, mysterious Word. It is possible to believe that such disciples may preserve their respect for the faith, whose depository their master has taught them to handle without what to them appears to be a superstitious dread. The case we are to consider is this: A Bishop startles the world with books which contain strange investigations and bold conclusions on a subject hitherto held to be sacred, at least to Bishops. By an accident, this Prelate rules a South African See. He is a colonist—a South African colonist. This launches his books upon the colonies, gets them a local circulation amongst persons and classes of persons with whom, had there been no relationship of place, such literature would have found no acceptance. The books, it may be, are but little read, less studied, still less understood; but through allusions in the newspaper press and by the mouth of rumour and shallow, sounding talk, the bare and bald, but bold, conclusions of an elaborate process of criticism get a lodgment in the common mind; and knowing how scant is the learning of the Colony in the departments of biblical, philological, historical, or other criticism, as well as how little accustomed are the majority to really

exercise their own judgment;—knowing also how great a proneness there is in these days to loose thinking on questions of religion, and how welcome to the flippant would be the seeming authority of a great Church dignitary;—is there not reason for supposing that all this would be pretty sure to encourage an irreverent temper towards religion? Anon the Bishop is declared to be a heretic, the effect of which, in some quarters, is to make heresy respectable, especially so as everywhere in South Africa this heretical Bishop is renowned for his zeal and respected for his learning. At the next stage he is excommunicated, and his bishopric is given to another. This makes him a martyr, and fires the sympathies of many, who, in embracing the cause of the man and the officer, become attached to his views, which, however, they are more likely to misunderstand than to comprehend, and which, when received without intelligence, cannot, it is to be feared, but conduce to irreverence. If it be the case that the painful labours of his later years should, however indirectly, contribute to bring religion into disrespect among the colonists of South Africa, we believe no one would deplore so evil a result more than the Bishop himself.

We have now reviewed some of the causes which may possibly favour, perhaps, the most serious form of irreverence in the South African Colonies; and with this closes an essay which may itself be charged with the fault it has endeavoured to exhibit. It is possible to exaggerate evils and to distort facts and national characteristics by insisting upon looking at them through the medium of a foregone theory. Much that has been said may seem to be the

result of a want of respect for South Africa. As yet, as we have already said, there is not much fervour of nationality or true patriotism amongst any of us. But this much may be ventured, that national character in most new countries early takes the form of vain-glory. The best corrective of this is the discipline of criticism, which, however, should not be ill-natured ; and we hope in this case it is, at least, free from that fault.

*THE VISION.**

The night had wasted in the hope of rest
Which came not, for a weary grief had pressed
Upon my frame, refusing hope's control,
Or slumber's ease ; then fell upon my soul
The shadow of the future, not all dark,
Nor bright, but like the solitary spark
Of a lone beacon on the midnight sea,
Streaming afar ; so in my memory
The brightness of that vision holds its sway,
The darkness marks the doubt of life's uncertain way.

In gloom I seemed to sit ; a dread obscure
Spread o'er me and around me, rayless, pure,
Appalling—darkness like eternity,
Where nearness, distance, shape, or boundary
There was not ; and the widening, far-strained eye
Was conscious of its place and power alone,
Lightless and visionless ; nor thrill, nor tone
Came there upon the ear ; the weight of gloom
Was then the mind's sole sense ; as if the tomb
Had sealed upon the heart its last and awful doom.

As on the void I gazed, its bosom seemed
To pour a faint ray from its depths, which gleamed

* The reality of what is here described consisted in a dream experienced by a brother clergyman in this country, very soon after the death of his wife ; and while tidings of the death of his sister-in-law were on their way from Scotland, but had not reached him, he thought he saw their spirits entering heaven, and while pressing after them, heard from the sister-in-law the words above given. All else in these lines is ideal.—JAMES ADAMSON.

Like a dimmed star in winter's vapoury sky,
Or the dawn struggling to reality.
For lo! the darkness glimmers into light,
And form, and beauty, to the earnest sight,
Wavering, and shadowy, and soft, and weak,
As the cloud-wreath around the distant peak
Beneath the calm ray of the southern moon.
Still, still it grew and widened, until soon
It shaped the outlines of two radiant forms,
With mingling trace; as drifting Alpine storms
Mantle with fleecy snow, soft, steep, and high,
Stainless of earth, twin sister crests, that lie
In the rich azure's deep immensity.

Still, as the radiance freshened, to the view
In sister grace and dignity they grew,
Alike, yet not the same, and memory,
Startled, recalled that, 'mid the things that die,
Such had been seen,—while statue-like they stand
Silently still, my stretched but doubting hand,
With baffled movement, sought to reach the flow
Of snowy light, which, like a silver veil,
Drooped low from off the bowed and humble brow
Of her that nearer seemed; while dim and pale
The other distant paused—whereat, with slow
And stately motion, they passed shrouded by.
Then did I know them of the things that die
No more; but hesitating fancy told
Their forms and gesture had been known of old.

So moved they on a space; till each waved back
Her veil, and stood, star crowned, against the black

And steadfast darkness, like a funeral pall
Of midnight gloom encircling, shrouding all.
There, hand in hand, they bent, and with a tone
Clear, calm, and still, as that the prophet lone
Heard in the wilderness, their voices spoke,
And my heart thrilled, for memory awoke
To tones familiar long, as at their home
The music of their voices sang "We come;"
And a clear welcome answered, calm and still,
"Ye blessed come! it is your Father's will."

Then at the word, a spell in strength awoke,
The veil of darkness waved, and rent, and broke,
Burst through by spreading light, and back there rolled
What seemed the opening gates of pearl and gold
Of Zion's City in the Apocalypse.
As from the sun fresh blazing, when the eclipse
Is past, the eye shrank down; while they two stood
And with immortal vision drank the flood
Of holy light. On the raised brow, the crown
Blazed with new splendour, as, far wide and down
From that high portal, like an ocean, came
The shadowless day of Heaven; as lightning's flame
It sped throughout the darkness. When once more
The still voice sounded—"Ye have gained the shore,
The flood is passed, enter ye chosen in!"
Then my heart bounded, and, forgetting sin,
Nature, and time, and death, and mortal birth,
The stains and weakness of our shroud of earth,
I rose with plaintive prayer,—"Here, Lord, I come!—
Me, too, receive to an eternal home."

And would have headlong rushed, with covering hands
Shading my downcast eyes, amid the bands
Whose music murmured in my distant ear,
As round the source of living light, and near
The Holiest, they sang; where clay-built frame
Would die, and the soul sicken in the shame
Of sin-stained nature; but then, soft and calm,
A voice fell on my weary heart, like balm
To its sore wounds; while in the glowing light
The nearer spirit turned, to bless my sight
With features loved in a far distant land;
And her lips' tone, which came clear, still, and bland,
Spoke soft—"Forbear! await your time—it comes."
Then gently turned she to the heavenly homes
Where grief is not. Meanwhile the distant one
Nor turned, nor showed a look, nor uttered tone,
But entered last. Yet in her lingering pace
Perhaps fond fancy might have caught a trace
Of earth's affections, scarcely yet suppressed,
As coveting some partner to her rest
In the bright mansions of Eternity.
So passed they in, in silence—Who were they?
Let time unlock its sacred mystery.

The portal closed, the darkness fell, the clouds
Together rolled; again the deep gloom shrouds
All form and sense; until returning day
Awoke the pilgrim on life's weary way,
To think in dread, or hope, upon the end,
To which time, life, and strength, and weakness tend.

JAMES ADAMSON.

THE NATURAL HISTORY OF A MOSS.

WHAT is in a Moss?

Not much that most people care for. It cannot be turned into money; that is condemnation sufficient.

Yet it can a tale unfold, which lacks not interest; and, indeed, man may not be required even in a utilitarian age to stand up solely for Utilitarianism. How would Science, Literature, and Art have fared had this spirit been the mainspring of human action? Is it not enough that we should be compelled to consider the utilitarian to the extent of filling our mouths?

Those who persist in recognizing it as man's chief end to follow Mammon must not think of natural history. In truth, they would be sorry students of it. Nature can only give the reward of a kindliness of disposition akin to herself—and that is better than gold,—and a nobility of spirit in the love of all truth, which is above any possession the world has to bestow. Science must be followed for her own sake, and her motto is, "Whatever God has taken the trouble to create cannot be unworthy of man's study."

There are somewhere about eight thousand mosses described from different parts of the world. How lavish Nature is of her power in such an obscure section! Some species are large, and all their prominent characters

can be easily made out by the eye or a common lens: others, again, are almost microscopic in their minuteness. They grow on all possible and impossible places. At the greatest elevations they are found on the hard, glistening surface of granite. They abound in the colder regions of the earth, and especially favour moist places. They love bogs. One genus, indeed, the *Sphagnum*, often stretches, in such countries as Scotland, for miles in patches, densely matted; and, covering the miry sloughs, allures the unwary into muddy depths. Peat is mainly the accumulation of ages of this Bog Moss. On highland hill-sides some most beautiful species grow on the excrements of deer and sheep. By streams, in streams, in shade, in sunshine, on rich loam, on barren sand, they are found accommodating themselves to their varying circumstances. Where all other vegetation ceases, lichens and mosses cherish the barren soil, as if to hide the hideous nakedness of the waste, and prepare a loam for higher forms.

Perhaps one of the most interesting and enigmatical studies in natural history is the relation of species to their habitats. How, in all the range of rational and possible theories, has the minute fungus, *Myxotrichum Treverani*,* come to associate itself with the corks of champagne bottles, and to grow solely on them. Mosses in this respect are most remarkable, for we find in the majority a most exclusive dependence upon special soils, rocks, &c. Some species are only to be found on basalt, others,

* Dr. Schimper, the great Cryptogamic Botanist, Prof. Trever, and others were dining after a botanical tour in Switzerland at Geneva, and Trever observing a fungus on the cork of a champagne bottle, handed it to Schimper, who detected it at once as new to science, and named it on the spot in his honour, notwithstanding the protestations of the discoverer against being associated to all time with champagne!

again, choose limestone, others schistose rocks, while some restrict themselves to sandstone. Certain species are even delicately particular in their choice of habitat. The Bristle Mosses (*Orthotricha*) may be instanced as affording a marvellous illustration of this. The genus consists of upwards of thirty European species, which grow nearly all on trees. One species favours trembling poplars, another the Canadian poplars. Several, again, are confined to ash-trees, one to willows, another to beeches, and so on in other remaining members of the genus. Some further species favour isolated trees, while others choose, rather, trees in woods. Three or four others, still, are usually found growing intermixed on the same tree. One of the genus frequents rocks occasionally inundated in *rivulets*; another is found on the same habitats in *river* courses. The latter also grows on the trunks of inundated trees, while the nearest allied form selects young willows and the new bark, which fills the cracks and abrasions of old bark on full-grown trees in similar situations.

What means this subservience of life forms to particular conditions of soil and climate? Seeds are blown by the wind far and wide on other habitats than their own special ones, but there they come to naught. What an amazing waste of life germs there must be in connection with this class of facts! Is not one tempted to imagine, with the author of the "Vestiges of Creation," that they are the offspring of the conditions in which they are found? But then how account for the fact of exceptional species abounding intermixed on the same tree!

Mosses belong to the Cryptogamic section of plants, or

that section which have hidden organs of reproduction. They are immediately under the ferns and above the liverworts. They have distinct leaves, branches, and stems. I shall have occasion to argue that they have a legitimate inflorescence analogous to the stamens and pistils of flowering plants. Their structure is generally cellular; one genus, the Bog Mosses, are vascular plants. It is on this account that, although dried up and parched, they immediately revive when moistened,—a fact of considerable importance to the student, who can thus at pleasure get the actual appearance of any moss, which has been sent him by a correspondent.

Here is this slender, pellucid, shining fabric of a moss; let us examine its strange life, its marvellous adaptations to the vicissitudes of this present evil world; and let us understand what its special worth is in the polity of Nature. We shall find much that is, if I mistake not, very wonderful, and worth all the time and attention I shall have occasion to bestow on it. It is the crisped Neckera *(Neckera crispa)*, so called from the beautiful crisping or rippling of the leaf, which I happen to have in my hands. Holding it before the light I find it beautifully translucent, but in a number of places at the roots of the leaves, if you look closely enough, you will detect small opaque dots, or rather points. These are the *flowers* of the moss, and on putting them under the microscope you will find them like beautiful minute buds or mosses in miniature. I can see from the rounded appearance of the buds that they are male flowers. On searching through my collection of the species, I came at last on one with longish slender buds,—the female flowers. Let us examine them

together under a pretty fair power. I take the outer minute leaves from them, and in the interior find the male flower contains bladder-like bodies and slender-jointed processes; in the female flower we find also these slender processes and bodies like Florence flasks in shape. The bladder-like bodies are called antheridia; and the Florence-flask-shaped ones are, for similar reasons, named pistillidia.

Most flowers proper are hermaphrodite, having stamens and pistils in the same receptacle. A goodly number, however, have stamens only or pistils only in the one flower; while some plants are found with both kinds of flowers on the same tree; others, again, have the different kinds on separate trees. In the two last classes the aid of insects is required to bring the pollen dust from the anthers to the pistils. Otherwise they would be perpetually barren. Contiguity and winds may also fertilize them. Now mosses, for the greater part, belong to the class which have, like the example I have quoted,—the crisped Neckera—the antheridia and pistillidia on separate plants. Few are hermaphrodite. The remaining class is more common. Many interesting and peculiar details of moss life depend upon this sexual classification. A bryologist often comes to a moss and finds it without fruit. On examination he will probably discover that the specimens are either male or female. Some mosses are rarely in fruit, as the two forms are seldom found together. Some species, indeed, are always barren in particular provinces.

The gigantic Feather Moss existed in Europe till late years as a female plant. The celebrated Klingraff had an American correspondent who found the moss in that

continent in fruit. Male plants were sent over and planted beside the females, and the first capsules grown in Europe were gathered in the following season. *Morium stellare* (the stellated drooping Moss) is always barren in Britain. Yet the two kinds of flowers occur in different parts of that island; but they have never been seen growing together. One genus of mosses, the *Campylopi*, are nearly all stubbornly barren from similar causes.

Now I can fancy some sharp-minded critic is by this time wrought up into a marvellous state of unbelief in what I have thus advanced. How, he demands, are mosses propagated, when they do not seed? How do they not ultimately perish? Here the two flowers live in single blessedness—seas roll between them, or mountains stand up a wall of separation. How is it that generation after generation finds them fresh and green? Unfortunately for the importunity of our reader, we have something more marvellous still to state to him, before we can answer his question. There is one moss, *Orthotrichum phyllanthum* (the frizzled Bristle Moss), which has never been seen even in flower. It grows all over the world, on rocks and on trees, not only barren, but flowerless! There are, indeed, several other mosses in the same anomalous position. One of these species, the papillose Screw Moss, has turned up lately, in Australia, in legitimate fruit; and it may be some future bryologist will find the other anomalies in inflorescence and fructification in some now unexplored regions. Yet, meanwhile, how do they maintain their hold?

Every one knows the process by which the apple and other cultivated trees are propagated. They are not raised

from seed, but from slits or grafts, or buds even. Mosses, like all plants, may be generated by this mode. Indeed, some of them voluntarily shed their leaves for this purpose. A clump of *Campylopi* is generally covered with myriads of loose leaves, which are carried about by the winds and deposited where they may germinate. The process of shedding is interesting. Young shoots or buds appear, especially after rain, on the stem where the leaves are fixed; and as new teeth in children push away the old ones, these buds strike off the foliage, which yields the only reproductive germs some species possess.

Not merely in this way are barren mosses perpetuated. There is a more wonderful mode still. Look closely with the microscope on the leaf of some moss, and you will perceive some warty processes or tubercles. These drop off and germinate into mosses. They are called gemmæ, and while most mosses have them sparsely, some barren species are covered with them.

Mosses in the three modes of reproduction are strikingly analogous to the lower forms of animal life. Several zoophytes, as sponges, have normal young gemmæ, and they may be propagated by fissure. The lower forms of both kingdoms have, indeed, marvellous resemblances. There is a great difference between a lion and an oak-tree, but one is at a loss to describe in so many words how a moss differs from a zoophyte. A particular example will do more to exhibit the analogy between them. The zoophyte *Eudendrium ramosum*, as its name implies, much resembles a plant in appearance. It has a main stem, branchlets, and twigs; and, moreover, the hydra heads at the ends of these processes may be likened to the

inflorescence of plants. The hydræ drop off like so many mature flowers, and their places are taken by rounded ova, which are ultimately liberated, and become, after metamorphosis, *Eudendria*.

If a close watch is kept on all parts of the parent zoophyte, very small pear-shaped vesicles (called by Rhymer Jones, *Pyrula*) will be detected nearly on every part clinging by delicate pedicles; and these, like the gemmæ of mosses, are in due time set free, to pass through various changes into *Eudendria*. Further, consider the fact that, by lopping off any branch or twig, you have another mode of multiplying the species, and there now will most distinctly appear to be three distinct forms of reproduction in the zoophyte's history, analogous to the three in mosses.

In what consists the bond of union between these three modes of reproduction—gamiparous, fissiparous, and gemmiparous? Or is there no connection whatever? Do they spring from one primordial function? In the simplest forms of life there is no differentiation, for reproduction and nutrition are performed in the same cell. Fissiparous and gemmiparous reproduction are undoubtedly connected; it may be, indeed, that they are merely forms of ordinary cell development.

What shall be said, however, of normal or gamiparous reproduction to indicate any connection with those others? I have read with great care the last work of the celebrated Darwin, and particularly that part on his hypothesis of Pangenesis. But I cannot say that he makes a clear case to my humble comprehension. Undoubtedly, many facts point out mutual relations and analogies in the two

sexes. In the instances of internal gemmation in Parthenogenesis, as in the young of wood-lice *(aphides)*; in the phenomenon of alternate generation; and conspicuously in the fact of the simplest forms of life consisting of a homogeneous mass only requiring a cell or gemma to reproduce them, while more complex bodies, as plants, need branches, or gemmæ and legitimate seed (which must, however, pass through various retrogressive changes before they arrive at the branch stage) to reproduce the plant,—we may observe in all these indications a progression of modes of reproduction. In the higher animals with differentiated parts neither division nor gemmation can obviously suffice, and Nature must depend there solely on normal reproduction by sexes. Throughout the whole animal and vegetable kingdom, indeed, we have, in the different modes for perpetuating organisms, progression and analogy; but progression and analogy can never mean of themselves development and identity. The whole matter is too hypothetical for publication and definite enunciation by so illustrious and careful a naturalist. But the facts, in the form in which he has advanced them, cannot but throw light on the mystery of life, which is at its threshold a mystery of mysteries.

This digression has led us away from some details of the fructifying process in mosses. It is very generally known how the process of fertilizing the ovule in flowering plants is consummated. The pollen containing the spermatozoids is brought into contact with the pistils by different agencies—such as winds, rain, and insects. In moss-flowers on the antheridia there is no analogue to pollen dust, but in their sack-like bodies there are

legitimate spermatozoids, which escape when these burst. Wind, rain, the numerous small snails and insects which den in the moss, probably carry them to the pistillidium in species which have the two organs on separate receptacles. By-and-by a small, delicate, thread-like process makes its appearance, which in course of time becomes a capsule, containing myriads of spores or seeds.

A beautifully adapted agent for scattering spores and emptying itself is this capsule, with its elastic sides, which shrink, when mature, to let free the lid. It is generally ribbed by four, eight, sixteen, or thirty-two striæ. The mouth is adorned with a fringe-work of little teeth, which are either eight, sixteen, thirty-two, or even sixty-four in number. Some mosses have capsules with a double fringe. Every one of these teeth is a study in exact chiselling and marvellous symmetry. The spores themselves, like dust of the finest quality, when put under the microscope are found to be two and four-chambered cases, each having a germ.

But something must be said of this law of division into four and multiples of four. The cellular growth of a moss is by division : a cell divides into two, each of these again into two, and so on. The cross section of a young stem has generally eight cells. Leaves necessarily disturb this law ; but as a rule the cells round the periphery of any moss-stem are eight or some multiple of eight. The divisional growth, therefore, going through the plant tends ever to produce numbers which are some power of two.

Much might still be said on the natural history of a moss ; but as the purpose of this paper is rather to give a chapter in natural science, with a moss as my text, I must draw to a close. As a class of plants, they are singularly

well adapted to face, amid all changes and hardships, the great law of the struggle for existence which they in common with all organisms must undergo. Frail, tiny, perishable they are; but how beautifully and bountifully provided with vitalizing and reproductive energy! You may crush their slender structure with your finger, yet they eat into and crumble the hardest rocks. A summer's sun shrivels them into an apparently dead mass; but with extraordinary power they take in the moisture of a summer's shower, and load themselves with it like a sponge. Frost and cold come to some of them as their proper season, for many species reach maturity in winter; indeed, some of the finest never can know change of season, for they flourish luxuriantly in the regions of eternal snow. Who would not love their submissive, clinging, struggling ways? For my own part, I can never rid my mind of the fancy that they are living, sentient beings. They have been my companions in many a lonely time; and as I look out on a dry upland, mossless South African landscape, the picture of a "far other" rises before me. It is such a valley as the poet has described, "with its own blue sky." Flanked by high verdant wooded hills, it runs to the south-west, rising gradually upwards through a long vista of dim woods to the everlasting mountains in the distance. A stealthy, winding stream runs through the mingled shade and sunshine of trees. As the eye glances along, it catches the gleam here and there of "some proud ancestral home." In such a valley, densely wooded, the mild south-western winds of the Atlantic bring on their wings rain to the lap of nature, steep everything in soothing moisture. The

gloaming brings ghostly vapours, which drench the valley as with dew. In a region like this mosses luxuriate. They grow everywhere, on trees, rocks, and the ground. There is not a blank spot, for every such is covered by a moss.

Somehow, too, you look round and feel that you are in old mother Earth. The fresh green face of the mossy covering turns to a hoary aspect, which remains as its permanent complexion. And do we not associate mossy growth with age and decay? They, more than aught else, give objects the look (in the conceit of the poet) "familiar with forgotten years."

Who has not wished to quote a piece of poetry at the end of a popular paper? I confess that I have had to hunt for one for my poor subject. Shakspere has some references to a mossy bank; but his high-souled, myriad-sided genius could be hardly thought to stoop to such lowly objects. Nor the heavenly muse of Milton! I waded through all our great poets in vain. My hopes certainly did rise when I came to Wordsworth, whose pre-Raphaelitism could see poetry concealed in the most humble and trite subjects. But no!

Accident at length put me in the way of a poem on a moss—a poem as unpretending as its subject:

THE POET AND THE MOSS.

For I was kind to old Decay,
And wrapped it softly round in green,
On naked root and trunk of grey
Spread out a garniture and screen.

He praised my varied hues—the green,
The silver hoar, the golden, brown;
Said lovelier hues were never seen;
Then gently pressed my tender down.—DANA.

MODERN GREECE.

THERE are some spots on the earth's surface that are consecrated ground. The individual claims some of them in virtue of his personal associations. History claims others of these places in the name of all civilized humanity, because the interests of mankind gather round them, and the destinies of the race have been profoundly influenced by what has been done there in the old but unforgotten past. Jerusalem, Rome, Athens are three of those centres of interest,—the pivots on which the moral, political, and social fates of mankind have at times revolved.

Judea, with Jerusalem its capital, must ever possess an interest which belongs to no other land under the sun. That city, hallowed by the presence of a King who once dwelt there in illustrious disguise, covering Heaven's Divinity with the poor robe of our worn and soiled humanity, stands alone in a sacred circle of historical associations. No matter to us what its present conditions may be. No matter though travellers are disenchanted and rudely stripped of many of their former associations as soon as they find themselves within its present dishonoured walls. It is enough, and will be to the end of the world, that that spot was the scene of the most memorable of all struggles; that there Christianity,

"that thought of God," which is destined yet to become the thought of man, was first taught by the lips and life of Him whose name it bears.

With Rome the associations are of a less lofty kind. Yet there were truly the triumphs of human energy in conquest and legislation, by which the Roman people gave law, order, and civilization to a prostrate world.

With the little land of Greece are associated a series of triumphs that stand midway between those of Rome and Jerusalem. They were neither moral nor military. Greece did not subdue the world by arms, nor was it there that the light of immortality, through the teaching of certain truths, first fell on the darkness of this life. But in that country the human intellect first vindicated for itself its native power and greatness, and rose out of the night of barbarism, and grew in strength and beauty till it blazed in the full glory, power, and splendour of the highest noon.

Civilization, no doubt, like another mighty lawgiver, was first cradled among the bulrushes of the Nile. There are some who will hear nothing said in favour of what unaided intellect has done in Greece, without pointing to what it had previously done in Egypt. It did much in Egypt; it did more in Greece. In arms, in art, in song; in appreciation of beauty and power of reproducing it; in their strength and subtlety of intellect, the Greeks, among the men of their own days, stand alone. They personified one phase of the human intellect, and filled a certain place in the intellectual history of mankind. Philosophy, poetry, science, and the arts of architecture and of sculpture came all alike easy to them: Their

versatile genius triumphed equally in each separate region, and wove for itself those laurels of immortal fame which the consenting voice of every succeeding century has declared it worthy to wear.

There is not one of those readers whose eyes may at any future day light on this page who has not been influenced to some degree, greater or less, by what these gifted men thought and felt, spoke and wrote, two thousand five hundred years ago. Their influence is of a kind of which we cannot divest ourselves. It is like the all-pervading, constantly, and silently operating influence of light on the material world, or of Christianity on the morals of civilized and Christian nations. Even when neither of those two heavenly forces is consciously recognized, its operation is not the less constant or the less potent. So in the thought of mankind has been the influence of those bygone times. In the throbbing brains of those men who are the busy and conspicuous actors of to-day it has already done its work. In that verse of the poet's song, of which the ink is not yet dry; in that new mathematical formula for some further development of material science; in the proportions of that building the foundation-stone of which was laid but yesterday; in the shape, and shade, and hue, and tone of the thoughts of all educated men,—of all, in fact, who read at all,—the influence of the old Greek is not the less real and all-pervading that it operates unconsciously. The Greek nation is not now what it once was. Its present political power and intellectual influence are something less than the shadow of a name. But in the world of thought their ancestors are still the true princes and

intellectual aristocracy of mankind,—the ministers and high priests of beauty, whose title no one has dared to question.

How many such thoughts were mingling with my dreams I know not, when I awoke one July morning, a few years ago, and found myself lying at full length on the bare planks of the deck of the Greek war-steamer Σφένδονη—*The Sling*. I started up from an uneasy slumber, and my eyes were at length, after long expectation, resting on the plains and mountains of that clime of the unforgotten brave. It was not yet broad daylight. Rosy-fingered morn—to borrow still from the rich past—had but begun to draw back the curtains of night and let in the splendour of day on the fair land of Hellas. But there was light enough in the purple east to show that we were now in the gulf of Ægina; that there was the plain of Attica; there the hills of Hymettus; there was the Acropolis, that temple-crowned height; and somewhere about its base must be the sleeping city of Athens itself.

I awoke from a good many dreams that morning. There are few, indeed, even among those who have steadily whipped through a book of Homer, to whom the name of Greece does not call up early visions of a land over which a halo of glory rests all too bright ever to be beheld by the eye of sense in a material form. Is it not there that azure skies, and cloudless noons, and purple sunsets of fairer summers than ever shone on earth—and of which we may dream but cannot see—still rest over a land where not a mountain rears its head unsung, and no stream seaward flows but has its story of heroic deeds; where pillared temples cast their majestic shadows,

and whence have come statues of wondrous and deathless beauty to remind us that that was the land, not only peopled once with brave and gifted men, but was even the fancied and chosen abode of the gods themselves!

This country, which has so rich and glorious a past, and which keeps along with the dreamy memories of the expedition of the Argonauts, and the wars of Thebes and Troy, the true histories of far more real and substantial services to the world's freedom against the rolling tide of Eastern despotism in the struggle at Marathon, Thermopylæ, Salamis, and Platæa, has, in comparison, a poor and sordid present. Yet there are signs of better days. Out of the tomb of national death in which Greece has so long lain she seems again to be rising. Various masters have ruled over the country since its most famous historical period. After the different States had quarrelled among themselves, and spent their force against each other, the Roman Eagle, under Sylla, first plucked the feathers from the Athenian Owl. This was as far back as three quarters of a century before the days of Christ. To trace the history of the country down the days of Turkish dominion would be a tale long to tell and sad to peruse. I shall but sketch the outline of those events which have secured the independence of modern Greece as a European Power—though still of the smallest magnitude.

Those who believe that any potent virtue resides in the number three will have their belief confirmed by the history of recent Greek independence. Twice the Greeks attempted to gain it, and twice failed. The third time they succeeded. Up till forty years ago, Greece

formed part of the Empire of Turkey. Amongst other peculiarities, the Greeks cherish an undying hatred to the Turks, partly for ancient historical reasons. When the latter took the city of Constantinople, that event terminated the old Greek Empire. There are also modern causes of this cordial hatred as well; and hence the frequent efforts of the Greeks to free themselves from the detested yoke. In the year 1770, Russia and Turkey were at war, and fighting on the Pruth. Russian intrigue did in Greece then what it is probably doing at this hour—fanning the embers of discontent. Two thousand men were sent from Russia and landed in the Morea. The Greek population rose, and, with the assistance of the Russians, butchered the Turkish inhabitants of the villages. Shortly, however, the Sultan's generals put an end to this work, and paid back the perpetrators of these butcheries in their own coin. True to their traditional character, the Russians allowed the Greeks to pay the full penalty of this bloody diversion in their favour.

Twenty years later, another attempt was made, which likewise failed. The third and last struggle, which commenced in 1821, was crowned with success. Several causes contributed to this. First, some of the Greeks who had been educated abroad were beginning to understand things better. They had learned, what every man should try to learn for his general education in life, that there is always a proportional relation between means and their results,—a relation as true as any arithmetical formula; and in cases where the material means seem inadequate, as where a small body of men overcome a

larger one, it will generally be found that the moral force employed has compensated for the material inadequacy of numbers or power. You cannot, as Goethe says, build a tower on a foundation fit only for a hut. Second, many of the Greeks engaged in business in the commercial cities of other countries were beginning to get rich, and money was now forthcoming to supplement patriotism and Greek valour. Third, a secret society had been formed under the name of the *Hetairia*, and was further developed, as most people now believe, at the instigation of that most dishonest of all Courts, the Court of St. Petersburg.

Let us not be astonished to learn that the ostensible object for which this society was set on foot was the promotion of Greek literature. Greek cunning and Russian intrigue are capable of such a feat. In its existence previously to this declaration its object had been of a feeble and powerless kind. But with this laudable object it soon stepped into favour. Kings and princes were numbered among its members. It spread through Greece, Russia, Austria, North Italy, and even to Paris. Thomas De Quincey has, I think, remarked that there is only one other society of the kind to be compared with it—the Society of United Irishmen, which played an inconspicuous but not unimportant part in the events in Ireland in 1798.

This innocent society continued its studies in Greek literature from the year 1815 to 1820. While it was becoming enthusiastic on the addresses of Demosthenes, and enraptured with the Republic of Plato, it will not be amiss to say it was probably devoting some time to various

studies on the constitution of the Turkish Empire. These studies were intended to take effect about the year 1825. The Sultan was then to be startled with a piece of news which it was believed would make him knock the ashes out of his tchibouque, and bound off his divan in astonished rage.

But about the year 1820, one of the Sultan's pashas, governing at Yanaina, a town on the mainland, opposite what was once our own Island of Corfu, thought fit to quarrel with his master at Constantinople. His name was Ali Pasha, a man of extraordinary energy, and considerable ability as a governor. The *Hetairia*, and the Greeks generally, thought this a fortunate event for them. They seized the opportunity; and in Greece and the Principalities bodies of men began to show themselves, and make plain that they were no friends of the Sultan.

The storm in the Principalities blew over, and the Russians again left their friends to the tender mercies of the Turk.

In Greece, matters proceeded differently. Near Patras the first act was performed of this drama, for which there had been one or two previous rehearsals on a small scale. The Greek Bishop, or Archbishop, as he has been sometimes called, of that place had been suspected of having more to do with the politics of the day than was right for a faithful subject of the Sultan, or becoming in a man whose time and thoughts were supposed to be occupied with less ephemeral things. He was sent for by the Turkish Government. This venerable patriot had got thirty miles on his way, in obedience to these orders, when he seems to have thought better of it. It suddenly

occurred to him that, instead of going to be questioned, he was probably going to be imprisoned, perhaps to be strangled, and, as the termination to this pleasant vista, there was the possibility of his head making a journey to Constantinople in a bag, for the grim satisfaction of certain beholders at the Sublime Porte, while his body remained behind as his final bequest to his native Greece. This confused and unsatisfactory perspective in his picture of the future caused him, like a true artist, apprehending the real contour of the occasion, to alter his point of view. He turned back, and, finding the people ripe and ready for revolt, he raised the flag of Greek independence at the small village of Kalavrita on the morning of the 2nd April, 1821.

The news fled to Patras, where this act was like a match to a loaded gun, and the fighting commenced. The Greeks rose against the Turks, and there was a good deal of human butchery. The war then spread through the Morea, and with a good deal of varying success on both sides, and with much of that savage reprisal that men make upon each other when their worst passions have been roused.

Accounts of these doings reached Western Europe. Interest and sympathy for the struggling Greeks was awakened; and, what was of more consequence, money and arms were sent to assist them; and many of our own countrymen went to their help. Amongst others, and, perhaps, the best known, was Lord Byron. He, more than any other man, helped to inspire an interest in Greece and the Greek people. Whatever there was about his life to be regretted—and that was not small or

slight—it was well that he who sang "The Isles of Greece" should breathe his last in the land over which his wonderful genius has shed so fadeless a halo. There were others who did good service to the cause,—General Church, who a few years ago still lived at Athens, General Gordon, and many others of lesser note. The careers of some were long and active; Byron's was short and sad. He landed at Mesolonghi in the beginning of 1824, and died there of fever in April of the same year.

There had been three campaigns, but no decisive success. The Sultan got tired of this indefinite game, and he handed over the work of subduing Greece to the Pasha of Egypt. This ambitious man readily undertook the task. Ibrahim Pasha, his son by adoption, sailed from Alexandria with a large fleet and seventeen thousand men. The Greek fleet met him in the Ægean, and, though there was not much fighting, yet Ibrahim found the Greeks were accustomed to the water. Like the British, the Greeks make excellent sailors; the Egyptians, like the Germans or the French, are not so good.

Meantime, the sieges of Navarino and Mesolonghi were being carried on. At the latter, the defenders behaved in a way worthy of the descendants of those who fought at Thermopylæ. When starvation had reduced them to extremities, a party of two thousand cut their way through the Turkish camp, and escaped to the mountains. Many of these were women and children. The women were placed in the centre, and they were dressed in men's clothes, and armed. After heroic fight, they found themselves safe in their mountain fastnesses. Another party was driven back by a false alarm. The

Turks entered the city, and then commenced all the unutterable horrors of a city sacked. The greater part of the defenders betook themselves to the buildings connected with the powder magazine. Their enemies followed them. They allowed them to enter in large numbers, and then blew up the magazine, and friends and foes were cast high aloft into one vast aerial doom. And so ended the siege of Mesolonghi.

Negotiations, however, had been set agoing in the chief European Courts relative to the state of Greece. Great Britain, France, and Russia agreed that something should be done to set up Greece as an independent kingdom. The Russian Bear here outwitted both the British Lion and the French Eagle. The Sultan told them all, in diplomatic language, to mind their own business. However, the three Great Powers thought it was their business, and they did mind it. The Greeks had earned a character as troublesome pirates in the Mediterranean ; and as their master's fleet could not keep them in proper order, this was thought to be a sufficient reason and excuse for sending to the coasts of Greece a strong armament composed of British, French, and Russian vessels. They brought an order for the fighting on both sides to cease, and an unsatisfactory armistice followed. The Greeks were heartily willing. They had now been fighting for seven years, and were glad of a moment to wipe the sweat from their faces. But Sultan Mahmoud in his kiosk on the breezy Bosphorus, and the Viceroy of Egypt in his palace on the clayey banks of the Nile, thought quite otherwise. They disliked the idea that just as their prey was about to fall into their mouths these new

deliverers should take it from them, and various attempts were made on their part to evade the conditions of the armistice.

It was about mid-day on the 20th October, 1827. The allied fleets were outside the Bay of Navarino. The Turkish and Egyptian fleets were at anchor inside near the batteries on shore. It was arranged by the three Admirals that they should enter and take possession of Navarino. The three fleets sailed inwards, Admiral Codrington's ship leading the way. Orders were given not to fire unless the Turks began to do so. About two o'clock, when all the ships had entered the harbour, a boat was sent from a British vessel to one of the Turkish ships with some message. The friendly reception given to this boat as it approached the Turkish ship was a volley of musketry, which killed the lieutenant and several of the crew. The ship *Dartmouth*, to which the boat belonged, thought that one such friendly act deserved another, and returned the volley with exceeding good will. The British admiral's pilot was then sent to the Turkish admiral's ship, but before he got there he was shot down in his boat; and by this time also the shot from the Turkish guns was beginning to strike the *Siren*, the French admiral's ship; and, as Gilbert á Becket would say, the French sailors were now dancing at balls given by the Turks.

This was too much by way of a salute of honour. In five minutes more the previously quiet and peaceful bay became a scene of bloody strife, and for four hours thereafter the roar of cannon, the cries of dying and wounded men, and the explosions of burning ships were the sights

and sounds of Navarino harbour on that fatal afternoon. When the firing ceased and the smoke cleared away, the Turkish and Egyptian fleets were missing. They had gone higher up into the air and deeper down into the sea than ships in still water can safely do. Of thirty large vessels and more than forty small ones which had composed these fleets when the fight began, only one large ship and fifteen small ones were able to sail out of the harbour when the fight was over. Six thousand Turks went to their last account, and seven or eight hundred killed and wounded were counted on the side of the allies. This was the battle of Navarino, which put an end to the war in Greece, and set up that country as an independent kingdom.

Every one—except a Greek or a Russian—now believes that the battle of Navarino was a great mistake. By destroying the Turkish fleet, it made Russia mistress of the Black Sea, where previously the Turkish naval power had been dominant. The Crimean war has some very traceable connection with the battle just described.

There is nothing about Navarino about which the victors have any reason to congratulate themselves. It was a slaughter by unequal forces. The Turks, no doubt, fought as bravely as they did at Sinope, where their ships and men were crushed by mere weight of metal and disparity of numbers. But there is another and more singular point of resemblance. History repeats itself, and, Janus-like, stands on the shore at Navarino looking two ways at once. Old Navarino is now acknowledged to be the city of Pylos, the well-built city of Nestor, of which readers in the Odyssey will remember

something. In those days, which date as far back as 425 B.C., a naval battle was fought in the Bay of Navarino, by which Athens, from her victory over her rival, Sparta, became the first city of Greece. By another contest, fought in a style that would have realized the conceptions of the old combatants as to what the battles of the gods must be, Athens became again, after an eclipse of more than two thousand years, the capital and chief city of the kingdom. Nauplia, however, was the seat of government for a few years after the battle.

Greece being now a kingdom, it was necessary to procure a king for it. One would think that there were always men enough hanging about the Courts of Europe who might be induced to accept the present of a small kingdom. But it was not so. The Crown of Greece went a-begging. It was offered to a Prince of Saxony. He would not have a gift of it. It was then offered to Leopold, late King of the Belgians. He felt tempted, but afterwards repented, and he, too, said he would not have it. It is believed that the Crown was pushed past King Leopold, and the Greek people were deprived of a good ruler by the intrigues of a man named Capo d'Istria. He was acting in the capacity of Provisional Governor at the time the three Powers were advertising in all the Courts of Europe—a Royal Crown for acceptance, and nothing to pay! He was in the Russian service, a count by title, and a native of Corfu. He was, doubtless, under the impression that if nobody else would be king he might one day be king himself. He ruled despotically; and, amongst other such acts, had imprisoned a bey of the district of Maina. A son and brother

of the imprisoned chief disliked the act, and took the law into their own hands. Capo d'Istria was coming out of church one day, when a well-aimed blow in the side from a dagger, and a pistol-bullet through the back, caused the unfortunate man to expire in a few minutes. They made sure work of it; but one of the assassins was killed on the spot, and the other was shot shortly afterwards.

Finally, the choice of the three Powers fell on Otho, second son of Ludwig, the late ex-King of Bavaria, and brother of the present monarch, Maximilian. He landed in Greece in 1833, and reigned at first by a Regency of Bavarians, and then in his own proper person, with varying success, till he had to make way for the present occupant of the throne, King George, from Denmark.

It was under his rule that Greece of the present has taken its shape and form. It is now forty-two years since that great naval battle took place which lifted Greece into a seat among the Powers of Europe. Looking back over that period, it is not possible, even with the strongest wish to present the best side of things, to maintain that the country has progressed rapidly. Its commerce is unimportant; its agriculture, in some of its details, is worthy of the days of Homer; its roads, in some districts, have a tendency to narrow into footpaths, at short distances from the cities, and to become indistinct tracks, and finally to disappear altogether as roads; the resources of the country, such as they are, are undeveloped; there are no manufactures; money is scarce both in the individual and national exchequer; loans are frequent, when

they can be obtained; and till recently brigands on almost all the roads were disagreeably common.

But instead of offering generalized opinions, I prefer to give my readers some of my recollections of the place and the people, leaving the conclusions to be chiefly formed by themselves. In the Hotel d'Angletere, which stands, or stood a few years ago, at the north end of Æolus-street, the traveller will find some approach to the comforts of an English hotel. I made my way thither along with my friends, on leaving the Σφένδονη. Six years before I entered the city I had read an account of Athens by a previous traveller. I knew the chief streets of the place by name at least. I knew that Æolus-street and Hermes-street ran at right angles to each other; and that the former of the two was the principal thoroughfare. My too vivid fancy had built a modern city for the capital of this modern kingdom, and had filled the chief streets with handsome buildings and well-furnished shops, fronted by broad pavements, daily swept by busy crowds. I discovered that such impressions were purely pleasures of the imagination; for Athens of to-day, the present capital of Greece, is composed of two parts. There is the old city of the days of Turkish rule, which is a collection of poor houses; there is the more modern part, towards the west end, which has simply the appearance of a second-rate German town. Nevertheless, Athens has enough to compensate for all the lack of interest that belongs to its present structures. The past, not the present, occupies the traveller's interest and attention.

In about a fortnight after he has landed he begins to condescend to look at Modern Greece. He becomes

sensible of the fact that the streets of the city are really peopled by living Greeks. But up till then he has been mostly oblivious of the fact because of the stronger impression that he is walking about the streets of the city where Plato taught; that he is in the land where Sappho loved and sang; where Æschylus, Sophocles, and Euripides produced their immortal tragedies; where Aristophanes wrote his comedies; where Demosthenes swayed the will and heart of Athens as the wind moved the trees of the wood; where Phidias and Praxiteles called forth out of the cold marble those living statues that have forced expressions of admiration from the lips of one generation of men after another for the long space of more than two thousand years. So complete is the victory of the past over the present, that one would not be astonished to hear some new Demosthenes commencing: "O, ye Athenians, how long shall ye patiently submit your necks to the yoke? How long shall this man, Philip of Macedon, be endured?"

But there is another man whose connection with Athens, though brief, will not be forgotten. He was not an Athenian; and he does not hold any conspicuous place in Greek history. He was a native of the opposite coast of Asia Minor; a student of law by profession, but a maker of tents by the custom which compelled every man of his people to learn a handicraft. He was doubtless acquainted with Greek literature, for the colleges of his native city were at one time as famous as those of Athens itself. He did not write tragedies; but he wrote Epistles, which have been more widely read. His name is Paul, the Apostle of the Gentiles!

As we make our way to the Acropolis, whence the city can be seen outspread beneath, we pass by Mars Hill, for ever associated with the name of the first preacher of Christianity to the extra-Jewish world. This hill is a bare mass of rock nearly level on top, though sloping gently towards the west. We ascend from the field below by steps hewn out of the rock, up which Paul is said to have trod. And Tradition—by the finger of Yani of Corfu, our guide—points to a spot at the east end of this rocky platform where the Apostle stood and addressed what has been characterized as the most shrewd and acute, the most witty, polished, and scornful assemblage that ever listened to a preacher of Christianity.

The Acropolis is a vast mass of rock shot up out of the level plain, with steep, precipitous sides, and very much like the rock on which the Castle of Edinburgh stands, and to which it has often been compared. Many temples have adorned this temple-crowned height, but one outshines them all. It is the Parthenon, so called because dedicated to Athena Parthenos, or the Virgin Goddess. It is a temple, or the ruins of one, built in the stately and solemn order of architecture known as the Doric. Its length is two hundred and twenty-eight feet, its breadth one hundred and one. It was built of marble, and finished about the year 438 B.C. Pericles was then governing. Ictinus and Callicrates were the architects.

What is it that justifies these details about a temple two millenniums and a half old? Let us hear. That is the building which still stands in its solemn grandeur and unmatched sublimity to give the law of beauty and of proportion to buildings of every age and clime.

It is perfect. No one has yet found in it any fault. It is truthfully described as the finest building on the finest site in the world. Though only that edifice remained, it would still be an everlasting monument of the exceedingly delicate and refined perception of beauty which these men of old possessed. Attempts have been made to reproduce that building under some modification. These attempts have seldom succeeded. The measurements were made with extraordinary care, but the ease and beauty of the original have not reappeared in the copies. Why? Probably, because those old builders knew better about the matter than we do, or because they wrought with more of the patience necessary to all high and true art.

The Parthenon has been carefully studied, as it deserves to be, and two of the most wonderful discoveries in its measurements, of a comparatively recent date, are these: Where we should have placed lines rigidly and mathematically straight, the Greeks introduced a delicate curve. This occurs in the horizontal lines. Wherever we should have striven after an unimpeachable perpendicular, the Greeks, understanding matters better, actually threw their stately pillars slightly off the slope, greatly to the advantage of the whole building.

Besides this famous erection there is the Erechtheum and the Temple of the Wingless Victory—made wingless to detain her in the city—also deserving of notice and more attention than can be now given.

But from our position on the summit of this famous rock, we can view the city lying below, and observe how the two streets already mentioned cut Athens into four

parts. Nearest the Acropolis, and at one part clustered round its base, lie those parts of the city that are remnants of the Turkish rule, and which resemble exactly the houses one sees in Smyrna and Constantinople. At the south end of Æolus-street still stands the Temple of the Winds, and in the open space round this shrine, dedicated to Æolus, the young Greeks of the school-boy age may be seen every evening at their play,—very much, we may believe, as they played at sunset long ago, when Socrates moved about among them, and said to one, of whose character he was doubtful, "Speak, boy, that I may see thee." Further off to the north-east are the ruins of the Temple of Jupiter Olympus; to the west, and close by the high road, stands the Temple of Theseus, the national hero, which, strange to say, has escaped the destruction that has fallen on so many of those beautiful buildings that adorned the Athens of old. This Temple of Theseus stands nearly as it did on the day when the builders stood back from its walls and pillars, artist-like, to view their work. The roof only of that building is of modern date.

From the top of the Acropolis the traveller can satisfy himself as to the accuracy of that oft-repeated resemblance between Athens, the capital of Greece, and Edinburgh, the so-called Modern Athens. I cannot say I have been greatly struck with the resemblance as to mere physical features. But there are the following undoubted points of correspondence: The Castle-rock of Edinburgh will represent the Acropolis; there is Mount Lycabettus, corresponding to Arthur's Seat; there is the Gulf of Ægina, corresponding to the Firth of Forth; and the

island of Ægina to the island of Inch Keith; there are the opposite coast and hills of Argolis, corresponding to the coast and hills of Fife. Despite of all this, the chief resemblance must be sought in something more than the physical features of the two cities, though these are undoubtedly striking.

Greece of the present day contains about a million and a half of inhabitants, and the capital rather more than thirty thousand. The country is not over peopled. It could support twice as large a population. The climate, however, is not the most healthy in Europe. Fevers of the malarious type are said to be not uncommon. There are also other causes that retard the increase of population.

Many theories have been started to show that the Greeks of the present day are not the descendants of the famous men of old. A discussion on national descent would be out of place here; but there is a measure of satisfactory proof. That there has been an extensive mixture of blood there can be no doubt. But if we find a people inhabiting the same country, speaking the same language, exhibiting the same national and individual peculiarities which we know belonged to the race two thousand years ago, we must admit that they have some ground for their pretensions. We cannot deny that the Greek of the present day has a good deal of the Greek in him.

In appearance the Greek men of the present day are handsome and well made. They have considerable height, with lithe, slender bodies; and their faces are rendered more thin by the universal practice of shaving off their whiskers and beards, and allowing a large

moustache to grow. All this, with a free and easy and almost jaunty air, gives them a somewhat martial look. The priests alone among the Greeks wear their beards.

Three styles of dress will attract the attention of the traveller immediately on his landing. There is the national dress—that of the Palikars or braves, which, in its most important feature, closely resembles the kilt of the Scottish Highlander. It consists of a *fustanella* (*i.e.*, a little petticoat),—an Italian diminutive, which those who know that language will easily translate. This curious article of dress is sometimes made of twenty or thirty yards of white calico,—sometimes of much more,—is drawn in folds about the waist, and, to those unaccustomed to the sight, gives the wearer a rather singular appearance. The somewhat feminine character of this part of the dress is redeemed by the remaining parts, which consist of a loose jacket with open or free sleeves, not unlike that worn by some of our hussar regiments, a red cap or fez, with a blue silk tassel, a sash, a broad leather belt which contains generally a purse, a tobacco bag, a pocket-handkerchief, and, singularly enough, very often ink and a pen ; red or coloured slippers are worn; and this costume is completed by a pair of pistols and a dagger. This is the full national dress of the Greeks of the present time. King Otho was very fond of it ; some say it was the only point in which he was thoroughly Greek.

After that comes the dress of the islanders. It consists of a fez and a jacket, but its speciality is the trowsers. They appear to consist of two very large bags sewn together, and drawn into innumerable plaits round the waist and half way down the leg below the knee. An

immense mass of cloth is kept dangling round the inferior extremities of the unfortunate wearer. But he seems not displeased with this encumbrance, rather the contrary when the cloth is new and makes a rustle like silk.

The third form of dress is that of Western Europe. It appears within-doors as the black dress coat of dinner costume, and out-of-doors in any of those modern forms of shapes and colours which we adopt at the present day at the bidding of those who clothe us. This is worn by the business men—who are called Phanariott Greeks,—that is, those who come from Phanar, the Greek quarter of Constantinople. These are generally the men of the upper classes in the cities. They speak French and English, perhaps, in addition to Italian, the universal business language of the Levant,—and Greek, their own native tongue. In the society of Athens, beginning with the court and coming down through the different grades of society till we reach the crowd of loungers in front of the "Cape of Beautiful Greece," we find there are three styles of dress, bespeaking social distinctions or differences of employments.

From the appearance of the Greek men of the present day we may pass to another allied subject. M. About, a Frenchman, who has become known as a pamphleteer in Paris, when a comparatively young man spent some years in Greece. He afterwards produced a book called "*La Grece Contemporaine*," which the Greeks did not like; and for which a certain critical Greek journal called him a hunchback jester. The book contains a good deal of French flippancy and also a good deal of truth. The following passage, among others, occurs: "The beauty

of the Greek race is so celebrated that . . . . travellers think they have been taken in when they arrive in Athens. Athenian women are neither beautiful nor well made. It is because Athens was twenty-five years ago only an Albanian village, and it has been rapidly peopled with men of all kinds and nations. This explains the ugliness of the Athenian type. The real type of Greek beauty though rare, is yet met with,—though only in certain privileged islands and in some of the nooks of the mountains where intruders have not penetrated." The observation of most travellers will confirm this statement.

In the days when it was more the fashion to quote Byron than it is now, that is, when the middle-aged generation of to-day were young people, there was probably no young lady's scrap-book or album that did not contain a sketch, more or less perfect, of a languishing female face of the most approved Greek type, and underneath the following quotation :

"Maid of Athens, ere we part,
Give, oh give me back my heart.
. . . . . .
By those tresses unconfined,
Woo'd by each Ægean wind
. . . . . .
By those lids whose jetty fringe."

It may interest the readers of this paper to know that the lady whose beauty has received such world-wide publication was still alive a few years ago—and may still be living. The poetry of her early days, however, has long since been translated into the plain prose of Mrs. Black. She married an Englishman, and some short

time since resided at the Piræus, six miles from the city of Athens. Her family is grown up. One of her sons fell in the Crimea.

As no account of any people is complete without a statement of what they eat and drink, let me say that the Greek people are temperate in both. An Englishman would eat as much as several Greeks, and not think he had dined too heartily. The drinks of the country are arak and wine. Casks and glass bottles are scarce in the interior, and a large proportion of the wine is mixed with resin, to prevent its spoiling in the skin bottles in which it is kept. The preservative must be applied on the principle of spoiling the wine at first to prevent that happening afterwards. Good wine, however, can be got.

The various mental and moral peculiarities of this re-nascent race are easily described. You will not have been long in the country, mixing with the Greeks, if you have any language in common, before you discover that they have a great deal of intelligence, vivacity, and vanity, and an insatiable curiosity; that they are passionately fond of political freedom, and are thorough-going democrats, despite their form of government; that they are proud of political discussion, and are anxious to know what you think of Greece; that they take more readily to commerce or trade than to agriculture; that, like the British, they have an intense individuality, and think themselves rather better than any foreigners they have as yet become acquainted with. Any one who recollects the national peculiarities of old Greece will recognize in these characteristics so many features identifying them with the men of former days.

The Greeks are first-rate talkers and good as disputants, but, with one more ancient characteristic, apt to be sophistical. Perhaps it is not censorious to assert that their intellectual perceptions are often much clearer than their moral ones. One amongst many other instances that impressed this on my own mind is the following: I sailed from Malta in company with an educated Greek, who spoke English. He was a law student, and actually bore the honoured name of Socrates. We had to spend a fiercely hot day on the small, bare, rocky island of Syra. We betook ourselves to the Hotel d'Orient for rest and refreshments. I found a retired verandah, to which I retreated for coolness to wait in patience for the rising of the moon and for the evening breeze, when the ship would sail. My friend discovered my retreat, and talk he would. The conversation took the shape of a discussion on the morality of telling a lie when it is advantageous to do so. This may seem very easy of refutation: not so with an acute, sophistical Greek. In despair I closed the conversation by telling him the days of the Sophists were not yet gone; and that Socrates the elder would need to come again to convince Socrates the younger.

Public education in Greece is abundantly provided for. It is either entirely gratuitous or charged at a merely nominal rate,—whether given in the humblest village school or in the University of Athens, with its faculties of theology, philosophy, law, and medicine. The offer of a free education has not the effect observable in many countries of making it little thought of. There is a mischief of an opposite kind. Amongst a people so intellectually inclined as the Greeks, every young man

possessed of any ability tries to become a student; and thus there are too many of the educated class in a country where labour with the hands is more necessary than skill in a profession. The young men are thus educated above their position. Greek ambition takes fire in University halls. Each Aristides, Demosthenes, and Themistocles who sits on the bench, rapidly filling his note-book, marks out a future for himself scarcely less distinguished than the career of the patriot, orator, or general whose name he bears. But he has no property. He has lived abstemiously at college, perhaps on bread and olives—as the sneering Frenchman remarks—and while there he did a little work, between hands, to earn a few drachmas weekly. But when he has finished his university course, such work is beneath his dignity. He must therefore secure a place from Government. It is not of consequence whether the position has duties; it is sufficient if it has a salary. And thus from this overdone good arises one of the misfortunes of the Greek people,—the existence of a large class of officials, holding offices with or without full duties, in a Government without strength and without money for much more urgent wants.

There are two points of view from one of which Greece and Greeks of the present day are generally regarded. First, that which sees everything through a haze of memories of past greatness and heroism, and allows the light of that better past to give a warm colour to the grey deadness and barrenness of the present. The second view regards everything with a hard, critical, disparaging judgment—forgetting that complete national regeneration is not to be accomplished by a *coup* sufficient

for a revolution. Hence there are many who miss no opportunity of disparaging the Greeks of to-day. Some of their slanderers maintain that their patriotism has never carried them to the length of exposing themselves to musket ball. The history of the War of Independence is a sufficient reply to this. There are others who, with much more truth, maintain that the patriotism which was proof against leaden bullets in that war has fallen before the influence of silver drachmæ in the peace that followed. It is to be feared that there is some foundation for this charge. Under the Government that has given Greece its present form and status, the officers of all ranks were too much dependent on the King for their position. They had to do not as Greece required, but as Otho ordered. Political corruption thus blew its deadly breath over many healthy aspirations for the advancement of the kingdom newly struggling into life.

From the people we pass to say a word about their rulers. What the present occupant of the Greek throne will be, and do for the country of his adoption, time will gradually reveal. But had we lived at Athens a few years ago we should often have noticed on summer evenings, on some of the roads round the city, a riding party of more than ordinary number. They ride fast, and as they overtake or meet you, first comes a man in the Greek national dress and usually on a grey horse. He looks sallow from fever, has a face indicative of anxiety and suffering; and is said to be slightly deaf from the quantities of quinine he has taken. He does not seem to enjoy the evening or the ride, or the company of his friends very much. Life seems to press heavily and

wearily upon him. That is Otho, late King of the Greeks, and recently dead !

By his side rides a lady in many ways a contrast to him. She sits gracefully on her horse. She has a plump face and a countenance indicative of energy and health. She must, in her earlier days, have been beautiful, if she is not so still. That is Amelia, late Queen of Greece, wife of Otho, and daughter of a German Prince—the Grand Duke of Oldenburg. They had no family. Probably the Queen has grieved over this. Of the two Royal personages most people believe that the Queen would have made the more vigorous ruler. She has energy, at least. Her iron constitution and smiling face contrast always in public most strongly with the air of wearied majesty that sits constantly on the features of that spiritless-looking man who rides beside her. She had a few years ago the reputation for an amount of personal activity which may indicate her character. She is fond of riding on horseback, and at a speed that few horses can long stand. She was said to go down to the bay of Phalerum, where Demosthenes practised with his pebbles, to bathe in the sea at five in the morning ; she dances at court balls, and drives over thirty or forty miles of country without seeming to suffer from fatigue. A Greek lawyer once expressed to me the following opinion, which is, perhaps, an accurate judgment. Her Majesty has spirit, energy, and courage : but more is wanted to make the Queen required for this country.

These two Royal personages were the first King and Queen of regenerated Greece. They found its crown not more softly lined than crowns usually are. Let us raise

our hats respectfully and let their Majesties pass along the road. As rulers, they have already passed into the page of history.

The Government of the country is administered by the King, a Senate, and a Chamber of Deputies. The people were supposed to have all the benefits of a just constitution,—individual political rights, a free press, and religious freedom. But the late King liked to have power in his own hands. His constant effort, and the most common fault of his Government, was to centralize the administration in his own not very vigorous self. The fault of the men who held office under him was that they tamely submitted to this on condition of being allowed to remain in office. Thus, under a feeble ruler, there was produced a feeble and unprogressive administration at a time when unhesitating vigour and Herculean power of remedying abuses were necessary in order to counteract the effects of centuries of neglect and decay.

But the people were not always satisfied. The year of grace 1843 witnessed a bloodless revolution in Greece. The people assembled, and besieged King Otho in his palace; and, after a siege of ten hours, brought him to capitulate, and forced a charter out of his hands—which he fulfilled very much in the manner in which King John fulfilled the charter the great barons of England compelled him to sign at Runnymede. When the crowd stood in the square the King came to the window and addressed them. He tried to put them off: they would not be put off. They shed no blood; but one loaded cannon, at least, pointed to the palace. For ten hours the King delayed, and for these hours the people waited in patience.

Otho was stubborn, but the Queen, with a woman's quickness of perception, made a better politician. She saw that such sullen obstinacy might in a few hours deprive her of her title of Queen of Greece, and send her away home to her father's house in Oldenburg, a Royal refugee. She besought the King in tears, and it is said on her knees, to look at the consequences. When did woman's tears ever fail? The constitution was granted, the people dispersed, and the steamer which had been kept at the Piræus ready to carry the King and Queen to Germany, in case they should prove obstinate, was ordered to let the steam off!

Two things a Government must always possess in order to be a Government,—power and money. As it uses these for the welfare of its people, it is a good or a bad Government. The Greek nation is in extreme poverty. It cannot pay a reasonable interest on its little debt, to foreign holders of the loan at least. Yet it has a revenue amounting to between sixteen and seventeen millions of drachmas yearly. That is, in English money—pray do not laugh—a little over half a million sterling. So that there is one European Power, at least, with a revenue somewhere about the same in amount as the revenue of the Cape—which, for its age, is one of the least advanced of all the British Colonies. At the present time, the revenue of Great Britain may be taken to be about seventy millions. In proportion to the population, that is rather more than two millions of taxation from each million of tax-payers. In the same proportion the revenue of Greece should be trhee millions annually. Yet the whole revenue of that kingdom may be represented by

the annual income of a pair of English marquises or dukes—Bute or Westminster, whose revenues amount to more than a thousand pounds a day.

How does Greece yield so little revenue? She is favourably situated for commerce, and has a good climate. She has olive oil, silk, and the grape; besides other less important products. But the want of roads, of manufactures, of a currency in the remote parts, and the neglect of agriculture, on the promotion of which the country must take its first start to wealth, all tend to keep the kingdom poor. The want of good roads prevents regular communication, and prevents heavy products being brought to the market. So scarce is money, also, that in the interior taxes are paid in kind. The land-tax, which is part of the revenue, is thus collected. The farmer tramps out on a floor his crop, and collects it into a heap and watches by it night and day, in all weathers, till the tax-gatherer comes and makes a rude measurement of the heap, taking, I believe, a tenth part as the tax. This system is radically bad, and probably Greece and Turkey are the only countries in Europe where general taxes are so collected. On the plain of Marathon, I beheld one day a tramping out of grain by horses on a very large scale. It is exactly the same as that followed in many parts of the Cape Colony. It occurred to me then that no advance had been made in threshing machinery for a very long time; as it is probable that by this same primitive fashion corn was threshed out for the use of the troops at the Siege of Troy.

I have said that good Greek currency is scarce. In the shops of Æolus-street in Athens, you will get in change for English sovereigns or French napoleons, the

following coins: English shillings and sixpences, rupees from Calcutta, French francs, Saxon marks, Austrian zwanzigers, and Mexican dollars. Silver Greek coins are exceedingly scarce. Accounts are kept in drachmæ and leptæ. A drachma is a silver coin, value about eight pence halfpenny; a lepta is eight tenths of a penny; and a hundred leptæ make a drachma.

The revenue of Greece is small, and it is thus absorbed: There is a little court, a little army, a little navy, a few ambassadors abroad, courts of justice at home, and several other necessary elements of an administration. All these things require money for their continued existence. First comes the King, who takes about a twelfth of the whole, or rather more than a million of drachmas. If Queen Victoria were to take in the same proportion, her share would amount to four millions sterling. The little army of less than 12,000 men—too large for the necessary support of the Government, and too small to resist foreign aggression—and the little navy of small ships, swallow up nearly six millions of drachmas. The internal administration of the country receives nearly the rest. There is one item which must yet be noticed.

Greece, as a Kingdom, owes its existence as much to foreign loans as to the broadsides of Navarino. A considerable debt was thus contracted. The lenders did not anticipate that the Greek Kalends would probably arrive by the time that a fair interest was regularly paid on their loan,—whether it was given from a purely financial calculation or from phil-Hellenic sympathies. This is not a very creditable view of the financial honesty of Greek administration. A recent writer has made the following

statement on this subject. It refers to appropriations for meeting the interest on foreign loans within the last year or two: "The Greek budget assigns 2,000,000 drachmas to the payment of interest on foreign loans, and 3,000,000 to pay the interest on the internal debt! This is very patriotic, but indifferent honest, for it pays foreigners at the rate of ¾ per cent. and Greeks at the rate of 10 per cent."

Proh pudor! The men who act thus have surely been at school in Sparta, and learned that loans, like theft, have no dishonour unless you are caught in the act or have to pay a reasonable interest. But, like the stolen fox, these loans may yet gnaw the vitals of those who hold them, and cover them with a shabby cloak of selfish patriotism.

The Greeks, it is said, also believe in the restoration of the Greek Empire at Constantinople. It would be better if they would think of the development of the resources of the present Greek Kingdom. Trade, and not territory; agriculture, and not aggression; steady industry, and not political intrigue, are the wants of the country. If they would look into the soil of Greece and discover what can be drawn therefrom, instead of indulging in political star-gazing at the Northern Bear, there would be some hope, and even certainty, of national progress. But we may well suspect the patriotism which can sharpen swords but despises the plough-share. There is rottenness somewhere in the State of Denmark when a people, after having achieved their independence, will not, as freemen should, till the land their swords have won; and when there is a notable indisposition on the part of a large

number of those who have fought, well and bravely it may be, to return to the cultivation of the humbler arts of peace. Such men forget that the great Dictator who twice saved the Roman State when that Power was slowly climbing to universal empire, was at work in his fields when the message of the Senate was brought informing him that absolute power had been placed in his hands. No nation derives much permanent strength from those vapouring patriots to whom the excitement of camps and revolutions is necessary ; and the elasticity and recuperative power of any country may be measured by the readiness with which its people turn to their former employments after a war has ceased. Perhaps no people manifest this power so strikingly at the present day as the Americans.

Even granting that the beautiful city of the Sultan were at some future day to change hands,—and *absit omen*, lest the Black Sea and all its connections become a chain of Russian lakes—do those who are now so discontented with Greece as it is ever steadily contemplate what must happen before that can take place? Before that rêve Muscovite, as the French call it, can become reality, and the black Imperial Eagle float over the Golden Horn, what an amount of blood and treasure will need to be poured out! And after all that, is the terrific historical tragedy to end like a three-volume novel by bringing fair fortune and happiness all the days of their lives to all concerned? We once sailed with a captain who, in an unaccustomed sea, new to him, read his chart of the prevailing currents backwards; but that was nothing in comparison to reading history in such

new lights and with such great expectations. What sudden benevolence must thaw the icy strength of Russian selfishness if so dearly won and so valuable a possession as the capital of Turkey were to be handed over to the smallest of the European Powers! Let not the Greeks dream of Constantinople, even though it be their old seat of empire. That is the rêve Muscovite,—dreamt, like the vision of an older king, seven times each night.

Amongst the schemes for the revivification of Greece the most recent is an extensive system of railways. Foreign capital must, of course, construct these—if they should happen to be constructed in the days of their present projectors. There are Greek millionaires, though none are to be found in Greece; they live and flourish in London, Manchester, Vienna, St. Petersburg, and probably Constantinople. The singular thing is, that out of Greece Greeks become rich. This happens because their aptitude for business finds more scope and a wider field in foreign capitals than in their own country. Perhaps they will patriotically assist. As a means of transit through the country railways are necessary. Perhaps Greece is the only European country that has no railway, or had none a few years ago. Even Turkey is in advance of it in this respect. There is a short line from Czernavoda to Kustendjie, which cuts off for travellers from Vienna to Constantinople a detour of more than two hundred miles by the delta of the Danube. There was also another constructing, and is probably now open, running eastward from Smyrna.

As necessary to carry off the products of the soil, railways in Greece are certainly premature. Yet they would

be a great boon to the traveller. At present, travelling in Greece is in nearly as primitive a state as can be imagined. Out of the towns there are no inns except the Old Khan, with its four walls and a clay floor, and water for your wearied horses.

Last year a writer in a weekly journal, in comparing Greece and Switzerland, produced a clever sketch of travel in the former as compared with the latter country. It is so true, even to the kettle and the saucepan, that in my home in Africa I laughed, as I read, at the figure I must have cut in Athens some years ago. I remember how Yani, with his tents, and beds, and kettles, and bags of rice, and quarters of mutton, burdened the backs of fine mules, all prepared for the very journey this writer selects as the test and proof of the quality of Greek travel even in the days of express trains in other parts of Europe. The special expedition failed at the time through an attack of Greek fever, which sometimes kills Englishmen, and which disabled one of our party; but other journeys were undertaken in the same style. This sketch, which must bring up past recollections to many a wanderer in Greece, especially if he has traversed the two countries contrasted, is as follows: "A political comparison between Greece and Switzerland would only furnish striking contrasts. It is perhaps more instructive to compare the social and industrial condition of the inhabitants of these two classic, picturesque, and mountainous countries. Switzerland exhibits the fruits of wise conduct in the state, the canton, and the commune, and the fruits of activity, honesty, and self-reliance in the individual citizen. There is no place-hunting and no brigandage. Let some one of

those wealthy money-merchants and goods-brokers of Western Europe, who call themselves Greek citizens, visit the Greek Kingdom and travel by land from Athens to Sparta, and then return to Switzerland and travel from Geneva to Zurich. If he moves as a second-class passenger he must ride down the principal street of Athens from the Hotel des Etrangers, perched high on a Turkish saddle, with saddle-bags puffing out their unseemly paunches to derange his seat. His servant will follow, elevated high above his portmanteau and bed, and with a saucepan and kettle dangling below them. The Athenians who lounge in the streets, and who never venture further than to the Piræus or Kephisia in covered carriages, from fear of the sun or rain, will cast on him a glance of contempt. His muleteers will slink out of the capital by another road; but as soon as he is on the *via sacra*, and wishes to enjoy his own thoughts, they will place themselves close to the horses' heads and lift up their voices in those discordant strains that are called Klephtic songs. At night he must creep either into a smoky cottage with working oxen, or into a filthy barn with mules and donkeys. In five days, with a good constitution and a stout mule, he may reach Sparta. The hire of his horses or mules will be eighty francs. Now, in Switzerland, he may travel the same distance on a well-cushioned second-class carriage, in twelve hours, for about twenty-two francs. He requires no servant and no saucepan. If his work be worth ten francs a day, he is a loser of fifty francs in Greece and of only ten in Switzerland, not to speak of the money he expends otherwise, the time he wastes, or the shame he feels in riding down the

street of Hermes in pitiable plight, like an offering to the brigands. This little comparison explains in part how Greece is poor and barbarous, and Switzerland happy and prosperous."

There is one other feature of Greek character which, unfortunately, must be mentioned in this enumeration of causes obstructing the improvement and progress of the nation. It lies on the very surface, and yet its effects penetrate deeply. We have said that the Greeks, like the British, possess an intense individuality. With the latter this acts as a cohesive element in the general character; with the former it acts as a repulsive force, and tends to keep every individual as an isolated atom. It shows itself in narrow envy and hateful jealousy of the success of others, in free and indiscriminate fault-finding, and, as some say, in a tendency to a slanderous kind of talk. This is a grave fault, and while it destroys individual happiness, it stands always in the way of co-operation for great general ends. One would almost think that the same men who banished Aristides because he had so few faults still give their votes in the streets of Athens. When this evil spirit is exorcised, one more obstacle to the progress of the country shall have disappeared.

The writer of this paper would extremely regret if any statement in it were construed into a sneer against a people bravely endeavouring to recover their position among the community of European nations. It is a poor, mean, and sorry sort of humour to indulge in ridicule at the failures of the weak or at the lame race of the crippled. There is nothing so easy as to scatter self-confident blame in this poor world of ours, or to point

the finger of scorn at the imperfect efforts of the poor, struggling souls with which it is filled. It has been well said that the bravest acts, and the wisest utterances, and the noblest self-sacrifice can be made to appear mean, grotesque, and distorted, when looked at from a hard, unsympathetic, sneering, and cynical point of view. When men are doing the best they can, let us wish them God speed. And let us wish the Greek people all success by the honestest of means,—and that is, by their own efforts, and not by foreign help. But we need not, on the other hand, shut our eyes to the existence of certain habits and of a certain spirit which, as long as they continue, will bar the road to the success that is desired. The Greeks would be the better to remember that ambition is not ability; that aspiration, however wide, and high, and glowing, without proportionate activity and personal self-denial, will end in nothing; and that individual selfishness never leads to national greatness. If these things do not need to be considered by the Greeks, then the writer of this paper was blind and deaf while he lived in that country; and the greater part of what has been written by the truest friends of that people, from Byron downwards, has been a calumnious falsehood.

There is also an historical proof of the accuracy of these statements. The difficulty of governing the country seems to be constant. The latest news from Europe—let us take them for what they are worth—speak of a reported abdication of the lately elected King George, caused by the hostile attitude of the people. King Otho also spent many unhappy years; and the events at the close of his life led to a very unsatisfactory conclusion to

his long reign of more than thirty years. Dr. Doran might add him to his list of Monarchs retired from business.

The Greek Kingdom of the present day is a creation of modern European diplomacy; and, as such, is an instructive but not very pleasing or hope-exciting spectacle. And it may be questioned whether its creators, the statesmen of a past generation, were they now alive, would view their handiwork with much satisfaction or self-complacency. Diplomacy can create kingdoms on paper. It excels in the art of map-making; and some perverse mortals have thereupon concluded that the mere diplomatist plotting in his closet, and the geographer wearying the muscles of his back plodding and plotting with his protractor over his extended sheet, are but species of the same genus among the workers of the world. The moral fibre out of which national greatness grows, which rebuilds cities ruined by war, which constructs roads and opens ports, and which covers the land with the smiling beauty of cultivated fields bearing plentiful harvests, comes not out of portfolios and protocols. Diplomacy of the kind that consists essentially in leaving the main question untouched by carefully evading the moral grounds on which the dispute has arisen, however fair and plausible it looks at the time, is of the smallest value; and is only a bequest of trouble and anxiety to the Government or generation that shall follow after. Europe for the last fifty years has had more than over and enough of this far-seeing blindness, which prides itself on elaborately arranging things for the best, and when the dust and confusion caused by its efforts have subsided, it is found that things

have often been arranged for the worst. So long as men possessed of extensive political power refuse in any given case to do what is morally right at the time, and prefer to act according to the principles of diplomatic expediency, which in the supposed case may run across the lines of eternal truth and justice, so long will failure and confusion inevitably follow the momentary triumph and arrangement. French diplomacy some time ago, under an eminent philosopher and statesman,—M. Guizot by name,—married the late Queen of Spain to one whom people call an indifferent husband and an incapable King. This was reckoned a great stroke of business at the time, as carrying out an imaginary policy, and as tending to keep certain families on certain thrones; and in this business, perhaps, the British Cabinet was not free from blame. The results of this feat are witnessed so far in the state of Spain to-day, and in its condition for the last twenty years. When those who govern shall cease to be too shrewd to be wise, a better day will dawn on the peoples who are governed.

When the Greeks become patient enough to exert themselves in the arts of peace as creditably as they have done in the exciting strife of war, more prosperous times shall have begun. This will be the best argument to offer those who maintain that national greatness can live but once, that Greek nationality cannot be revived, and that the Greek people have had their day, as we are having ours. Whatever their future may be, that people have had a past of which they may be justly proud. Greek philosophy and poetry, Greek architecture and sculpture, and Greek valour and heroism, are not less triumphs of

national and even of human greatness because we do not find an exact counterpart of each in the present. Let these triumphs hang, as they do, as trophies in the consecrated halls of that most memorable and glorious past. Let the people to whom they belong try to imitate them. Let us still look on in reverence and admiration. And so Greece, despite of its disenchanting, uninspiring present, may be still to us, as ever, the land

"Where grew the arts of war and peace;"

and over which, even now, the rays of an eternal summer shed their quenchless light and imperishable glory.

*CLEOMBROTUS.**

"And he, too, was at Ægina."

Dead! and I was not there to soothe his pain
And show my faithful love unto the last!
Not there, to learn how men should leave the world,
And plunge into the nameless dark beyond!
To hear the last wise words that fell serene
From lips the gods had touched with holy fire!
Not there, to plead with those who were too base,
Too blind to know the greatness of his soul—
That they would but be just unto themselves,
And let not jealousy distort their sense,
And twist the fairest actions into foul.
But wherefore plead with brutes that have no sense?
I would have dashed the fatal cup away—
Defied them to their faces—called them mad—
Unworthy of the name of men—and left
By all the gods to their own wicked will;
And if I could have died for him I loved,
I would have thanked them for the death they gave.

* Note from the Author to the Editor:—I wrote this some months ago after reading a French translation of Wieland's "Aristippe," where Cleombrote is mentioned as having put an end to his life through grief at the death of Socrates, whose pupil he was—he being also absent at Ægina. I tried to fancy not only the grief and indignation of a disciple of Socrates at his death, but also the doubts of a Greek who had been taught by Socrates—who seems to me to question all and affirm nothing.

The gods! Where are they? Could they *be*, and not
Stretch forth a hand among them all to save
One man! and he the best of all below?
Since Greece began was ever known a man
So wise, so pure in life, so like the gods
As Socrates? And they have witnessed naught—
Mute, blind, and deaf, they take no heed of crime,
No heed of good. Do they not care for man?
Are all alike—the wicked and the wise—
To them, in their serene Olympian heights,
Sublimely selfish, self-contained, alone?
Yet, if I wrong ye in my thoughts, oh gods,
Forgive me, for I know not how to think.
Grief rushes like a torrent through my soul,
Upsets the gathered faith of many years,
Drowns all my reason, sweeps away my hopes,
And leaves me naught but bitter memory.

Oh Socrates! my master! father! friend!
Is thy shade wandering in some world unknown?
Can I by dying follow in thy steps
And overtake thee on the Stygian shore?
Or art thou with the gods already blest?
Or is there naught, indeed, beyond the tomb?
I go to prove: henceforth I live with him,
Or lie asleep in blank forgetfulness,
And mingle with the earth, and be forgot.

W. G.

Graham's Town.

ACCLIMATIZATION.

" Turkeys, carp, hops, pickerel, and beer
Came into England all in one year."

THIS was a pretty good introduction and experiment in acclimatization for one year, and the experiment has, we opine, proved eminently successful, none of the importations having died out,—the last, in particular, has propagated its species wherever an Englishman obtains a foothold. Long may it do so, in the various species and sub-species of ale, porter, half-and-half, stingo, " Pel-ael," " Portar-bierre," or by any other name.

The old couplet is, however, erroneous. Carp, it appears, were known in England in 1496, and are mentioned by Dame Juliana Barnes in her " Boke of St. Albans," and turkeys were unknown till 1524. Pickerel were the subject of legal regulations in the reign of Edward I, *temp.* 1273—1300; so it is probable they were introduced about that period, and hops are entered in the Customs Roll of Great Yarmouth, 32nd Henry VI (1453—4).*

But can we not record an earlier attempt at acclimatization? Yes. Solomon, we are told in II Chronicles, chap. 1, verse 16, " had horses brought out of Egypt."

* " Things not Generally Known," pp. 129, 130.

And, again, at verse 17: "So they brought out horses for all the Kings of the Hittites and for the Kings of Syria,"—doubtless, the sires of the celebrated Arab racers of our own days. But he went further (chap. ix, v. 21). "His ships went to Tarshish with the servants of Huram: every three years once came the ships of Tarshish, bringing gold and silver, ivory, and apes, and peacocks." We will not stop to discuss the vexed question whether "Ophir" was in the newly-annexed territory of the Transvaal or in—

"Taprobane—India's utmost isle,"

or whether the "peacocks" were peacocks or *ostriches*, as some think. Suffice it for us to know that the wisest of mankind did a little acclimatizing on his own account, and, doubtless, found the benefit of it.

We throw out this hint for persons who sneer at efforts being made to introduce foreign birds, beasts, and fishes, or plants and insects, into other countries. Let us take a hasty glance over some of our necessaries and luxuries, and see what we owe to acclimatizers. We are so bewildered we know not where to begin. Why! since man "the naked savage ran" he has been acclimatizing. He carried his beef and mutton-bearing creatures with him wherever he *ran* to. He also took his dog and cat with him as a defence against his minor enemies, such as the rats and mice which ate his cereals, which, by the way, he carried along also. Nor must we forget his egg-making machines, called cocks and hens, which, if the supposition of some eminent naturalists concerning their descent from the jungle fowl prove to be correct, he

must have captured in the forests of India. However, the origin and spread of most of these domestic animals is shrouded in mystery; but of some we do know a little. Sir Walter Raleigh brought the potato and tobacco from the then New World. Where will you go now and not find them? Turkeys came from the same place—Virginia probably. Captain Cook took the first, with many other good gifts, to New Zealand, and they have flourished abundantly, and saved thousands of lives. How tobacco has spread eastward, and become a necessary of life to thousands, we need hardly point out.

The ladies should side with the acclimatizers for the sake of the silk-worms' eggs, brought by the Jesuit Fathers from China, at the risk of their lives; and surely the hundreds of beautiful flowers which deck their gardens, brought from every clime, claim their gratitude.

We remember a remark made several years ago by a philosophical naturalist friend, that no new animals (taken in a wide sense) had been domesticated or naturalized (the word *acclimatized* was not then invented) for many past years, but that the time would come when men would be so tired of beef and mutton that they would ransack the earth to find fresh edibles, and important zoological changes would be the result. Our friend has not lived to see the changes he foretold; but had he done so, he would have rejoiced at the gigantic efforts now being made to exchange the live products of one country for those of another, or, in other words, to acclimatize foreign creatures.

We rather object to that word "acclimatize." *Climate* has, in our opinion, not so very much to do with the

success of experiments in this line. Doubtless, it has a considerable influence; but *food* has more. We do not suppose that a Polar bear would feel specially comfortable, or be without a liver complaint, in the Torrid Zone; nor would an orang or chimpanzee resist the cold of the Arctic Circle; but we think each would die of *hunger* before he died of *climate*. Some animals bear transport to any clime,—more or less successfully, it is true; but they bear it. Why? Because their food is either so varied that they can always get something to eat, or so generally distributed that they always find the article they require.

The first question, then, in introducing foreign animals—we use this term generally to denote beasts, birds, fishes, insects—is not, will the climate suit them? but will they find in their new home the food to which they have been accustomed, or one which so closely resembles it as to be a good substitute? Secondly, will the climate suit them, and not interfere with their powers of propagation? This has forced itself on our attention more than once, and especially lately; as we know that our energetic Attorney-General and several other gentlemen have revived the idea of introducing salmon, trout, and other European fish into our waters. Encouraged by the success of Australia in the introduction of salmon, they fondly hope that before long that lordly fish will swim in our South African rivers. We confess we are not so sanguine. We have not the least doubt that the ova could be brought here and hatched out; but then comes the question, what are the young fish to live on when they descend into the waters of the Breede, or the

Berg, or Orange River? We have looked in vain for the caddis-worm, the earth-worm, the minnow and fresh-water shells, the small fry and insect tenants of an English stream. They may fight a good fight, and survive the attacks of native carp, river turtles, otters, swart-muishonds, herons, hammerkops, and kingfishers, but will they make head against a scanty larder? That some species will thrive here has been demonstrated by the exertions of Mr. Charles A. Fairbridge, who has introduced carp and dace; the former are gradually spreading, the latter are still confined to that gentleman's pond at Green Point. We believe carp, perch, and pike would flourish in the long, deep zeekoe-gats of many of our small rivers. Of trout we have some hopes; but we despair of the best of all—the salmon.

While on this subject, we cannot forbear to notice a recent shipment of one hundred and ten thousand salmon ova and five thousand sea trout ova to New Zealand—a previous shipment of three hundred thousand ova last year having failed from remediable causes. They were dispatched on the 21st of December last in a vessel called the *Mindora*, laid on tiers of moss in tin boxes, and packed in thirty or forty tons of ice in a space specially prepared for them in the hold of the ship. (See "Land and Water," January 2, 1869, p. 11.) The editor says:—"A creature which, in itself, is more valuable than the sheep, inasmuch as it requires no feeding from the hands of man, but simply his protective aid, is now being sent across the wide seas, with a hope that it may accommodate itself to the circumstances and conditions it finds at the other side of the world."

It has already shown that, from its enormous fecundity as a producing animal, its value to man is incalculable.

"The main purposes of acclimatization are," to quote the words of a circular issued some time ago, "to introduce, acclimatize, and propagate . . . . such animals, birds, fishes, insects, and vegetables as are likely to be of use or ornament, whether for domestication or for varying the common food of the people, or for manufacturing, or for any other useful purpose, and whose constitution and habits offer a reasonable prospect of successful cultivation." Our Australian colonies stand foremost in their endeavours to carry out these great principles, and have pushed their experiments on a large scale. We regret to learn that in one (Victoria) the annual grant has been withdrawn by the Legislature, and that the efforts of the Acclimatization Society are proportionably crippled. But the good has been done, and numbers of different animals, birds, fishes, insects, and vegetables have been introduced, and now only require a fostering care, and wise parliamentary enactments against their wilful and indiscriminate destruction. Then they will increase and multiply and replenish the land; they will prove blessings to generations yet unborn; they will provide food for countless thousands. The waters of the rivers will teem with the lordly salmon and the lively speckled trout; the now silent forest will ring with the crow of the pheasant or the shrill call of the peacock; the whir-r-r of the startled partridge will scare the traveller on the grassy plain; the noble elk of India, the spotted Axis of Ceylon, the dappled fallow deer of Europe will roam through the forest glade. These will give food to

numberless mouths, while busy fingers will weave the silk spun by strangers of the insect world, or cotton introduced from the Isles of the Sea.

The laggard in the race is South Africa! With millions of acres of wild uncultivated land, what has she done to people them with denizens of other lands? Nothing! We know we shall be told that a deficient exchequer forbids the attempt. Terms accepted and agreed to. But what has she done to protect what she has already? Nothing! and worse than nothing!! Her Legislature for two sessions has refused to sanction a Bill to preserve her valuable wild animals and birds from utter annihilation. In vain comes the voice of warning from every district in the Colony. The ostrich, with its valuable feathers, which used to be plentiful in this district a few years since, has been quite destroyed. The hartebeest, with its many pounds of solid flesh, has disappeared from that district. Bucks here, birds there, all gone! What would be the good of turning out salmon or trout, or carp or dace, in the rivers of our land if the Legislature persists in refusing that protection which *every other civilized country* affords? A single sweep of a net would in a few moments destroy the labour and care of years, and the expenditure of hundreds of pounds.

It will be an interesting study to watch the effect of successful acclimatization on the balance of power in the great struggle for existence. Already, in some places, the introduced strangers have entirely destroyed the aboriginal inhabitants, whether human or of the lower grade of animal or vegetable. In Tasmania the native race has entirely disappeared before the white man, the very last

specimen having died this year; in Madeira (and also in St. Helena, we believe), the old Flora has almost faded out, to be replaced mixed by a selection from various countries.

In Australia the introduction of European grasses seems to carry certain death to the native timber. This was pointed out to us in the plainest manner in the neighbourhood of Adelaide, where, in spite of every precaution to preserve some of the noble, gigantic gum-trees as ornamental timber, as soon as the grass sprung up they all perished. The introduction of grasses into New Zealand seems also to have brought a pest which was quite unforeseen, and which will certainly not be got rid of again. Together with the grass-seed probably came the eggs of a grass-feeding moth *(Agrotis segetum)*, which has increased to such an extent that in the season when the caterpillar is about, the land behind the advancing army is a barren desert. The link in the chain of life is here wanting. Some parasitic fly, or insectivorous bird or beast, whose peculiar province it is to feed on and keep this moth in check, has not been introduced.

Rabbits have been acclimatized in Australia, and have succeeded so well that their skins, we are told, are now an article of export; but they have increased so fast that the farmers begin to fear the total destruction of their crops! The polecat, weasel, and stoat are wanting to keep down what Malthus would term "the too dense population." But the worst of all the attempts at acclimatization, which has *unfortunately* succeeded, has been the act of a demented Scotchman, who was so enamoured of his country and productions that (although he in the usual manner left it) he took with him a parcel of seeds

of his native thistle, which, on landing at the Antipodes, he cast forth with a liberal hand. The result may be imagined. "Ill weeds grow apace," and the memory of the acclimatizer is anathematized.

In this country we have a somewhat similar instance. Mr. D., a French gentleman, had presented to him as a *bon bouche*, by the captain of one of his national vessels, a barrel of snails! Mr. D., with an eye to the future, ate only a portion of his barrel, and sowed the remainder in the gardens of his friends and neighbours, where, as we have no winter, the brutes have increased at a double ratio, and inflict dreadful damage. If Mr. D. had but introduced at the same time their natural enemies, the blackbird and thrush, and the "household bird with the red stomacher," we would have forgiven him on account of their song.

It seems strange, but, we fear, true, that things powerful for evil are easier of acclimatization than those for good. Fleas, bugs, lice, mosquitoes, rats and mice, and noxious herbs follow man wherever he sets foot. We have but too much reason to know how the *Xanthium spinosum* came into the Cape; and we had the "melancholy pleasure" of seeing the first of the obnoxious weed carefully petted by a gentleman in New Zealand "as a curious new plant!" We soon enlightened him on the merits of the "illustrious stranger," who had made his appearance soon after the introduction of a prize ram and ewe from some celebrated wool farm in France. Of course a "burr" had remained concealed during the voyage in the fleece of one of them, and had dropped to the ground on arrival in New Zealand, the first plants

appearing in the pasture into which they had been turned on arrival.

A white ant *(Termes)* has been introduced into St. Helena in firewood, brought in some ship from the coast, and its ravages are too well known to need further allusion.

A curious instance of the want of a link in the chain causing an attempt at acclimatizing to *fail* may be found in New Zealand, and, we believe, Australia. Clover grows luxuriantly when sown, fresh seed being brought from Europe, but it will not seed. Those little "go-betweens of Flora," the humble-bees, are wanting! The plant is incapable of fertilizing itself, and depends on the humble bee for that office. None are found in the "Southern Britain," nor does any native fly appear equal to the task. We have heard that the Colonial Legislature has offered two thousand pounds as a reward for the successful introduction of the "Bumble bee."!!

IN MEMORIAM E. B. WATERMEYER.

Quis desiderio sit pudor aut modus
Tam cari capitis? Praecipe lugubres
Cantus, Melpomene, cui liquidam pater
Vocem cum cithara dedit.

Ergo Quinctilium perpetuus sopor
Urget! cui Pudor et Justitiæ soror,
Incorrupta Fides, nudaque Veritas
Quando ullum inveniet parem?

Multis ille bonis flebilis occidit.
* * * *

Horace, Odes, I, 24.

Shall shame restrain the fond regret,
Or check the falling tear—
The tear for him, now laid in death,
Regret for him, so dear?

Prompt, tragic muse, a mournful dirge,
With tuneful voice and lyre!
He sleeps the world-long sleep, life's close,
The prelude to a higher.

He's gone! and when shall Justice pure,
Faith's spotless sister, show
His equal? When shall artless Truth
His equal find below?

He's gone! and many a good man's tears
Fell on his early tomb:
But faith and hope may dare to pierce,
Beyond the cold grave's gloom.

L. D.

TABLE MOUNTAIN.

AN ART STUDY.

FIVE years ago the good ship *Roman*, William Strutt, commander, hove to some few miles beyond Robben Island, and about as many from Cape Point. She had been thirty-six days at sea, and was only waiting for better light to enter Table Bay. There was no lighthouse then on Robben Island, and as it wanted but three hours to midnight, and the atmosphere was dark and hazy, the captain deemed it prudent to lay by for the night. At that hour, and from the deck of the steamer, I had my first view (if, indeed, it could be called a view) of Table Mountain. It was the first and only landmark by which we had accurate information of our bearings, as, from some peculiar condition of the atmosphere, every part of the vast continent we were nearing but this block of rock and earth was hidden from our gaze. It needed a strained attention to discover even that through the deepening gloom, and, then, what we were assured was Table Mountain looked like some huge solitary mass of rock in the wild waste of waters. The waves seemed breaking at its base and round its sides, and, by some strange process I could not understand, to fall back again in flying foam over the summit. Now that I have become familiar with the strange action of

wind and vapour on the brow of the mountain, I can understand the unusual appearance which presented itself and how the waves seemed to enwrap it on every side. All night long I paced the deck, contemplating steadfastly the weird-like grandeur of the bold rock before me, the while thinking of the land that I had left, and conjuring up pictures of the country in which I had come to sojourn, with nothing but the dim outline of Table Mountain as the "fabric of the vision."

The morning brought me a glimpse, as far as the external appearance was concerned, which I shall long remember. We had drifted considerably to the southward, and entered the bay, as if coming from the east, skirting the bold shore of the peninsula which forms the long western arm of Table Bay. A good deal of rain had fallen in the night, and a Cape winter morning broke clear and fresh over one of the most striking landscapes I had ever witnessed. I say striking, because there was little of the tender beauty of quiet pastoral scenery with which an Englishman is familiar in his native land. A broad, calm lake of blue water lay before me, edged with a white and curving shore, and surmounted with bold, rocky mountain ranges. I have never lost, indeed scarcely changed, the impression of South African scenery received that morning. I had bid farewell to the green hills and valleys of Old England, the quiet country lanes, with the wild-briar and honey-suckle, the meadows rich in the tints of green and gold, the wandering inland rivers with the overhanging willows on the bank and the white lilies on the surface of the stream, and the leaping trout below; and I had changed it for a country where the light was

rich and brilliant, the atmosphere surpassingly bright and clear, and the scenery bold, spacious, and grand. The Hottentots' Holland mountains, though evidently at a great distance, stood out with a sharply defined outline in the morning air,—the ravines, and water courses, and terraced heights appearing with almost supernatural distinctness, albeit a certain sameness in the contour of the mountain range, and, indeed, in the shaping of every object in the landscape, struck me, as it must have done everyone who makes the acquaintance of South African scenery for the first time.

Turning a sharp curve of the bay we came in full view of Table Mountain. It stood before us like a great curved wall of rock, following pretty much the sweep of the shore, but flanked with bold projections, which greatly relieved the somewhat tame appearance of the central pile. On the eastern extremity of the curve, was the Devil's Peak, a little lower than the mountain, and separated from it by a long irregular neck of sandstone. On the western side, and joined by a broad open kloof, was instantly recognized the couchant Lion of geographical celebrity with his rocky head, long smooth back, and well-rounded rump. Cape Town looked secure and picturesque enough, guarded in the rear by Table Mountain, and on either flank by the Devil's Rock and the Lion's Hill. The whole mountain pile, which encircles the town, seemed to cover a space some four miles in length. But it must not be supposed that it stands alone. It was easy to see as we steamed into the bay that Table Mountain and the adjoining elevations form one extremity of a chain of mountains some twenty miles

in length, stretching along the whole length of the peninsula, and terminating in a bold headland at Cape Point. A stranger at first sight makes a pretty good guess at the shape of the mountain and of the whole range of which it forms a part. It may almost be said that "the length and the breadth and the height of it are equal." It indeed presents an almost similar form to three points of the compass, breaking away at the fourth in irregular undulations as it joins the mountain chain to which I have referred. Though the aspect of the mountain is undoubtedly impressive on entering the bay, the traveller familiar with European scenery misses those *aiguille* peaks which are the glory of the Alpine ranges. It is satisfactory, however, to know that Table Mountain is constructed, after the true mountain pattern. It is after a true model as far as it goes, though lacking some few features which give artistic finish to more renowned elevations. Mr. Ruskin tells us that the longer he stayed among the Alps, and the more closely he examined them, the more he was struck with the broad fact of there being a vast Alpine plateau or elevated land upon which nearly all the highest peaks stood like children set upon a table, removed, in most cases, far back from the edge, as if for fear of their falling. The most majestic scenes in the Alps are produced, not so much by any violation of this law as by one of the great peaks having apparently walked to the edge of the table to look over, and thus showing itself suddenly above the valley in its full height. We in South Africa have the broad tableland, crowned, for the most part, with stunted peaks and domes. We have the high mountain fields without the spires of snow or the lapping sheets of glacier. We may

be able to notice points in our scenery which are some compensation for the absence of these grander features of mountain landscape.

At certain hours of the day, the side of Table Mountain facing the bay has a somewhat commonplace appearance. In the full glare of a noon-day sun, the whole surface is flattened by the too brilliant atmosphere, and presents the appearance of a huge curved wall of rough stone. The light is too glaring for true atmospheric perspective, and the real shaping and contour of the mountain are lost in its excess. Even the abundant foliage of the Platteklip ravine, and on the broad slope rising from the valley, looks hot and dusty, and shares for the time the dull grey colouring of the mountain. But towards evening, when the sun is nearing the horizon, the whole scene is changed. Broad bosses of hard sandstone, bold rocky escarpments, deep and nearly perpendicular ravines, appear as if by magic. In no landscape that we call to mind is the work of the shadow more strikingly illustrated. Look closely at the mountain and you will see that the projecting crags over the whole face are made prominent by thousands of shadows, which not only show up the forms which they repeat in dark and ghostly outlines, but the uneven surfaces on which they fall. So that, instead of a mass of rock flattened by excess of light, we have a mountain pile, broken with kloofs and filled with cavernous recesses. No one after studying the face of Table Mountain will wonder that artists, for the most part, choose to paint a landscape when the sun is low. On the eastern side the difference of light is not so much observed, and the general appearance is

always picturesque and striking. The ravines are cut deeper into the rock, and, after a northerly course through the slopes, rise perpendicularly to the very summit, breaking the "sky line" into zigzag undulations. From the Devil's Peak to the Hout's Bay Pass there are from twenty to thirty of these kloofs, piercing the mountain more or less deeply, and richly clothed with bushes and trees. From many points the appearance of this side of the mountain is singularly beautiful. Perhaps, for a near view, that from the little *spinet* behind the Rondebosch station is as good as any. It is far enough to catch the general effect, and near enough for the detail. Immediately in front is the valley of the Liesbeek, thickly planted with pine, oak, and poplar, and dotted with handsome, comfortable-looking dwellings. On the other side of the main road, the land commences a gradual and upward slope, which in the neighbourhood of the Block-house is comparatively open and unsheltered, broad paths, not unpleasantly suggestive of the traveller's toil, winding away through the brushwood. Between Mowbray and Rondebosch the vegetation becomes denser; and from Eksteen's Vineyard to Constantia, thick, broad belts and clusters of pine, brushwood, and oak, relieved by patches of white-headed silver-trees, cover the ascent from the road to the sandstone rock, from which point the mountain rises sheer for probably two thousand feet to the summit. Terraces of sandstone rock mount in regular succession, now hollowed into caverns and ravines, now projecting in bold escarpments, until they terminate in a long, ragged sky-line, about which the winds moan, and the clouds gather in mysterious groupings!

The foliage, it must be confessed, is somewhat stunted and dull of colour, as compared with the luxuriant and richly-coloured vegetation which covers the slopes of Mangerton and Turk mountains down to the very edge of Killarney Lakes. There the arbutus literally riots in wild and luxuriant festoons, creeping along the edge of the lake, and casting the bright reflection of its green boughs in the water. The pines of Table Mountain, though not of the most picturesque form, when looked at from a distance in clusters, are soft and rich. Mr. Ruskin has pointed out the singular circumstance that the one tree whose true home is the mountain is stiff and straight as a feathered arrow. Yet, surely, this is the very reason why it suits the rocky scenery in which its life is passed. Companies of pines rooted in the most unkindly soil never move their branches at the bidding of the fiercest storm. They rise in "serene resistance" to the mountain blast, and with their "cone of green" are the very image and representative of the strong, unbending forms about them. But if Table Mountain cannot boast of any choice varieties of the "true mountain tree," its foliage is at least characteristic. The broad, level belts of firs and brushwood form a suitable covering to the spacious slopes open to the eye at all points. If the mountain sides were more angular and broken, taking sharp curves and sudden turns in the ascent, a more luxuriant and wayward foliage would be much appreciated, but what there is is not unsuited to its extended projections and broad, open surfaces. The silver-trees, though not displaying their richest beauties at a distance, are quite in keeping with the colour of the rock, and give

somewhat of the venerable appearance to the old mountain which grey locks do to the human figure. In the dip of the road below Constantia, on the way to Hout's Bay, there is a singularly beautiful plantation of silver-trees. When the sun is low a myriad of leaves glisten like silver scimitars, and set off with picturesque effect the dark face of the mountain beyond. Their rough but bright and silken coats are seen in greater number and with more distinctness from Mr. Vipan's farm at Constantia, than from any spot known to me in the vicinity of the mountain.

From Hout's Bay valley a broad hoek pierces the mountain, enclosed on the seaward side by the "Twelve Apostles," and on the other by the broken, irregular ground, which is joined to the peninsular range by the pass above Constantia.

I am afraid the space allotted to me will prevent our making a closer acquaintance with the kloofs, which contribute so much to the beauty of the mountain, albeit these recesses, where the light is low and dim, and the silence is broken by the sound of falling water and the crackling of the pine branches, have a charm of their own. A ride or walk over what is specially called the Kloof to Camp's Bay, or round to Sea Point, is a popular recreation with Cape Town folk. The road winds gradually up from the western extremity of the town, past clusters of pines and a few old-fashioned habitations. A backward glance after half an hour's ride gives a fine view of Table Bay and the Blueberg hills. The full sweep of the broad, white beach, making the blue of the sea look so deep and rich, is nowhere seen to greater advantage, except, perhaps, from the block-house underneath

the Devil's Peak, and, of course, in the ascent of the mountain. But it is on the neck of the kloof, or just below it, that the finest view is to be had. On the right a narrow, richly-clothed ravine rises almost perpendicularly to the Lion's Head, and on the left the more sloping ground is dotted with silver-trees, oaks, and pines, while stretching down to the sea is the deep-cut ravine in which the Round House is almost hidden in almond trees. Further on is the shore, with its huge granite boulders, and still beyond, the bay, land-locked on three sides, but open on the fourth to the broad and boundless waters of the Southern Ocean. It is this strange mingling of the bounded and the boundless that makes bay scenery so beautiful, and appeals to a sense within having fellowship with higher things. Our life itself is like an indented bay, bounded on most sides, but on one stretching away in an endless track, on which nought is seen but here and there a solitary sail.

On the eastern side the kloofs are more retired, and awake a different order of feeling. They symbolize the best and deepest joys of solitude. The leaping of the waterfall from crag to crag, the gentle waving of the tree fern, casting its fretted shadow on the waterworn rock, the dark mosses with their mimicry of summer life, the brilliant lights above contrasting with the half tones of colour and not unpleasant gloom below, the deep and hollow reverberations of every sound, the footsteps or voice of the climber, the breaking of a stray branch or the sound of falling water,—all these things leave their own peculiar impression, and awake chords not touched by the broad, open landscape outside.

Not many days before writing this paper I strolled to what is known as the Waterfall Kloof, within a few hundred yards of the upper block-house. It was about four o'clock on a bright afternoon, and the sun sinking slowly, threw the shadow of the mountain with perfect distinctness on the white sandy flats below. So perfectly clear and exact was the outline that I believe a tracing of it would have repeated the shape of the mountain with as much distinctness as its image reflected in some of the valley vleis. As the sun got lower, the shadow crept miles and miles away over the plain, until its outline was lost in the broken ground below the further hills. The time of my walk was just after the early rains had freshened the foliage and the springs, and as I followed the winding path which leads from the block-house to the waterfall I could not help mentally exclaiming, Surely a more beautiful ravine never climbed its way into the mountain solitudes. A good part of it is broad and open, covered with a rich variety of foliage, and dividing the slopes, by which the ascent is comparatively easy. Then it makes a clean-cut opening in nearly perpendicular rocks a thousand feet or more in height, and climbs by steep, irregular steps (down which the water falls gently in the summer, but in a full, rushing stream after the winter rains) to the summit. In the lower part of the kloof the watercourse is hidden by the thickness of the foliage, but it is curious to note how the droop of the trees in the centre of the ravine suggests water, almost as much as the sound of its descent through the boulders. It will be remembered that in Turner's picture "By the

Brookside," the water is scarcely seen, but there is, so to speak, the *feel* of the water in the light, vapoury spray that fills the well-lighted arch and the indescribable atmosphere that follows the stream upward through its rocky bed, and in the dark, chilly look of the lower rocks. Another feature which catches the eye is the dark shade of the foliage, as the ravine enters the mountain. Below, it is brilliant and variegated, but as the light grows dim and the atmosphere chilly, it is dark as the mosses and ferns which clothe the rocks beside the waterfall.

Standing beneath the waterfall, the tiers of sandstone strata that look so level and comparatively smooth at a distance, rise like mighty towers of stone with rugged breastworks and pinnacles, worn into grotesque shapes by the winds and rains of many centuries. But yet there is nothing savage in the aspect of the rocks from this point. Every now and then there is a ledge or projecting platform covered with trees and creepers, which imparts to them the appearance of some fine old ruin. It is the abundant brushwood on these ledges that kindles so readily when the mountain is on fire. Driven by the wind, the flame leaps from crag to crag, until sometimes the very summit of the mountain is literally wreathed in fire, and the illumination is so brilliant as to cast shadows from the trees and houses at two or three miles distant. On either side of the waterfall the rocks are covered with rich ferns, kept continually fresh and green by the weeping of the sandstone rock. Indeed, all the beauties of the inner ravine are microscopic. The visitor must look from point to point, or he will miss many a cool

little nook, hidden perchance by an arbutus bough. On at least two sides of the mountain there are many kloofs as beautiful, and some far more extensive, than the one to which I have referred; some in which the ferns are absolutely luxuriant, and others, clothed with oaks and pine, which grow to an immense height, drawn upwards by the light.

So much for the structure and appearance of the mountain. It remains for me to give some account of the atmospheric effects which are associated with its bold heights, and of the strange grouping of mist and cloud about its summit. To the work of wind and cloud and light we are indebted for the ever-varying, ever-beautiful appearances which it presents. By their help its "gloom and glory" become a possession. Except to those who have had opportunities of closely watching it from day to day, the wonderful variety of the mountain landscape can scarcely be appreciated. Every morning brings some new effect, some fresh transfiguration of familiar forms, effected by wandering clouds and wavering lights struggling through the mists, or glowing on the piles of cloud. Perhaps to the constant play of the wind upon the moving vapour we are indebted for the most grotesque and striking, if not the most beautiful, appearances. I do not mean to say that the sunbeams fail in their great work upon our mountain. They strike shafts of fire through the hollowed kloofs, and fall softly on the flowing masses of cloud. But if we may separate the agencies at work in producing strange and startling effects, wind and cloud are, perhaps, the most potent. The characteristic beauty of sunlight in this country is the full and even splendour

with which it penetrates the air. Even distant objects, that in a less brilliant atmosphere fade away in hazy outline, stand out with perfect distinctness. Small boulders, almost pebbles, cavernous hollows in the rock, or tufts of green bush at the head of the kloofs, at an elevation of two or three thousand feet, are seen without difficulty. Let a spectator place himself at a distance of twenty or thirty miles from Table Mountain and Snowdon or Mangerton, respectively, on what in each country would be called a clear day, and he will be astonished at the difference in the effect. The two latter will appear in hazy outline against the sky, with the details of face and profile all obscured. But in the clear atmosphere of South Africa, the direction of the watercourses, the curves of the kloofs, indeed every bold wrinkle on the slope or face of the mountain, will be clearly discerned. I have sometimes looked at Table Mountain from the Cape Flats,—at what the photographers would call the sharp definition of every line, until the sense of distance almost vanished, and it has seemed as if I must see a human figure if it were climbing the heights, or hear a human voice if it broke the silence of the kloofs. But the effect of sunlight in its marriage with the manifold forms of vapour is not nearly so beautiful here as in Europe. Our clouds are more localized, and not so varied as in colder latitudes. The light breaks more rapidly, and the twilight is of shorter duration; and this circumstance, together with the greater clearness of the atmosphere, prevents the recurrence of those marvellous cloud-colourings so often witnessed at sunrise and sunset in the British Isles. Only rarely, very rarely, do we

see the sun sink behind those long bars of light cloud, "edged with intolerable radiance," or those little islands of fleecy vapour "floating in an emerald sea," and glowing with many-coloured lights that flash up and fade away before the darkness covers them. We are rather familiar with the changing forms of white cloud, with riotous processions and strange eddyings of vapour about the summit of the mountain than with any peculiar effects of sunlight or colour. One of these latter, however, must not be forgotten. I allude not to the sunrise, but to the reflection of the sunrise on the eastern side of the mountain. This is the first notice to the dwellers in Rondebosch and Wynberg of the breaking of the day. The sun itself rises far away behind the Hottentots' Holland mountains, and a wide waste of sand and broad belts of pine intervene. So that some time before the face of the sun itself, its reflection is seen on the mountains. Anything more beautiful than the line of crimson light which falls upon the face of the higher rocks I never beheld. The dawn-light, as it meets and fills the mists which have hung all night upon the earth, is generally red, or, as the novelists call it, "rosy;" but that which irradiates the mountain on a winter morning, after the kloofs have been exhaling moist vapour, is like a sheet of crimson fire. Slowly as the shadow creeps down the rocks the light changes to its normal colour, and by mid-day it is almost white, casting shadows of a deep soft blue.

Of the three winds that have most to do with the adornment of the mountain, the north-wester brings a heavy leaden vapour, the south-easter a thin white cloud, and the south-wester a white, but draggling mist, that

creeps sulkily over the necks of the kloofs into the valleys below. One or other of these is perpetually altering the aspect of the mountain throughout the year; sometimes hiding every part of it from view but the sloping fields of bush at the base, sometimes veiling the peaks and sky line, and hanging over Table Valley in white and lake-like fields, floating in level bays and winding gulfs about the lower bosses of rock, and sometimes falling like a cataract of foam over the level ridge on the northern side.

When the moist salt air is stealing across the Flats at sunset, we know well what is taking place on the summit of the mountain and elsewhere. As night comes on, masses of dark, heavy vapour gather round the Lion's Head, and slowly spread over Table Mountain. The ships in the bay are heading seaward and light showers have fallen through the night. A gentle breeze, from a point of the compass a little to the westward of the north, just ripples, and nothing more, the surface of the bay. In the morning the whole mountain will be wrapt in a heavy leaden cloud, and away over the Flats there will probably be processions of watery vapour moving sulkily towards the eastern shores of False Bay. Under such conditions there is certainly nothing very beautiful in the appearance of Table Mountain, or of its heavy funereal covering. Its shape would hardly be discovered but that the mist, lying evenly over the whole mass, in a rough way repeats its outline. But now is the time for a walk up the mountain slopes to see its shrubs and flowers. Their colours are never half so rich and brilliant as under this hazy canopy. In the most brilliant sunshine they are tameness itself compared with their appearance when heavy leaden clouds

are overhead. Lovers of flowers in the old country will remember that the brilliant scarlet of the geranium or the verbena, or the yellow of the calceolaria, are never seen in their glory until the heavy autumn light gathers about them. So the flowers of Table Mountain, the heaths and lobelias and geraniums, the little eye-brights, and flowering shrubs, are not seen at their best except when the clouds are low and the light is dim.

When the wind is fairly what is called a north-wester, or a little to the eastward of the north, the cloud phenomena are very different from those we have been describing. Mountain and vapour then share the general disturbance of the elements, and mirror faithfully the violence and terror of the storm. Indeed, it is difficult to say whether the dark angry frown of the mountain or the wayward rush of the wind first betokens the approach of a gale. The warning of the coming tempest is first felt along the valley of the Liesbeek. On the river's bank a low wailing sound is heard, as if a sharp air current were driven through its narrow banks by some mighty and yet unrevealed force behind. The long branches of willow stream along the air, and the poplars shiver as if chilled by the tokens of the storm. I can well remember the effect during the gale of 1865, when so many gallant ships were wrecked in Table Bay. Before a single disaster had occurred in the bay, there was something so unusual in the aspect of the mountain, in the sound of the wind, and the general condition of the atmosphere, that I and many others had an instinct that something terrible was in store. The wind, steady at first, broke out now and then as if into wild sobs, and finally,

in regular intervals, burst against all the solid material in its way with a sound like the boom of a minute gun. Sea-birds, who had evidently lost their reckoning, were flying wildly over the Flats, and screaming, half in terror, half in joy, at the strange sights and sounds in earth and heaven. And now the mountain wore its most angry and terrible aspect. It was covered with heavy embankments of cloud almost to the base, as when the wind is lighter and more westerly. It had, moreover, the same dark, leaden hue. But there the resemblance ended. Under a gentle breeze from the sea the clouds brood in calm stillness over the hidden rocks and kloofs; but on the 17th of May, 1865, every atom of vapour was in wild and wayward motion. The clouds seethed and boiled over the edges of the rock, rolled down the ravines, and back again up the ridges in billowy eddyings and processions. The wild waters of the bay, that drove fifteen ships from their anchors, and hushed for ever the cries of many brave men, were not more disturbed by the winds, and did not more faithfully mirror the violence of the storm, than the clouds upon Table Mountain. Many a time during a north-wester I have noticed the same phenomena. The vapour looks more like the steam of a caldron or the smoke of a vast furnace than the moist mists from the sea. Over and over again, when looking at the mountain, those words have occurred to me, "And Mount Sinai was altogether in a smoke;" "and the smoke thereof ascended as the smoke of a furnace." It is curious to notice how these clouds are fed from the sea while the gale is still raging. The cloud about the Lion's Head seems the connecting link between the fields

of vapour around the mountain and the water below from which their moisture is obtained. A graduated procession of clouds may be seen moving to this point from the waters of the bay. Rising at first in thin masses, they increase in volume until they reach the rock and finally spread themselves over the neck of the kloof and across the table-land beyond.

During a south-easter the appearance of the mountain, crowned with its thin and flowing stream of vapour, is both more beautiful and more familiar to the public eye than that which I have just described. Not a seaman enters Table Bay who has not seen and described the white table-cloth, that may be said to have done as much for the fame of the mountain as the mountain has done for it. The south-east cloud is not an "angel of the sea," or, indeed, a true water-carrier, though it moistens the high ground, drenches the traveller, and feeds the mountain springs. The driest air is charged with moisture, which, under given conditions, is distilled into vapour or rain. And as the warm summer wind, rising miles away across the ocean, comes into contact with the cold plate of the mountain, it changes into a snow-white cloud, which, driven by the fierce wind, falls like a cascade over the edge, and melts away in the warmer air below. Hence the cloud is solitary; it was not drawn to the mountain by attraction, but was born there of the marriage of the warm wind and the cold land. Often when the deep blue overhead is not traversed by a single cloud,—when the upper spaces are hushed and clear, and not a cloud shadow rests upon the open bosom of the plain, the white mists are wreathing themselves

in fantastic shapes over the brow of the mountain. The first notice of a south-easter is given by the piling of white clouds similarly formed over the Hottentots' Holland range. Within an hour or two after this appearance a thin fleece of vapour may be seen creeping over the Devil's Peak. It soon increases in volume, and descends in one broad cataract of snow-white foam over the whole breadth of the curved front which faces the bay. As it falls over the ridge, the stream is as perfectly smooth and glassy as a river tumbling over the edge of a weir. Unlike falling water, however, it does not dash up again in foam and spray, but edges off, like a thin, flowing mane, into the air below. Sometimes when the cloud is thicker, and peculiar air currents eddy round the gates of the kloofs, there is a wild riot of vapour over the whole face of the mountain, and sometimes far down into the valley, which is exceedingly grand. If we take a view of the "table-cloth" from the eastern side, on the Cape Flats, the effect is altogether different. From thence we see its profile extending often from the Kalk Bay mountains to the Devil's Peak. Every atom of vapour is hurrying forward in one continuous stream to the front of the mountain. In its wild hurry it fairly leaps the Hout's Bay Pass, and presses on to the heights above. Here and there a cross current breaks the stream, and the vapour rears up impatiently and curls backward like a wave before a wind from the land. The rear of the cloud loses the stainless snow-white hue which is so beautiful as it falls over the ridge, and is frequently heavy and dirty over Wynberg and Claremont. Steaming into the bay on the other side, we have still another variety. The

clouds which from the Flats look so wild and disorderly, are here "couched" in quiet masses on the broad breasts of the "Twelve Apostles." There they rest, massy and motionless, filled with rich light, and casting long broad shadows athwart the rocks. The dying away of the south-east cloud is, perhaps, as beautiful as its rising. Once let the wind be hushed, and that vast pile of vapour melts in the warm motionless air like snow before the spring sun. If the rain falls during the process, the clouds will hang in long grey bars about the lower hills, and finally vanish before a light wind from the sea.

I have only once been to the top of Table Mountain, so that I am not so well able as many to describe the ascent from the three points at which it is often made. Three or four years ago I accompanied a small party, ambitious of seeing sunrise from the summit. We started at one o'clock in the morning on a dark night, and made the ascent up the face of the mountain by the Platteklip ravine. I have not had a great deal of experience in mountain climbing, and am not one of those sneered at by a writer in the *Times*, who spend the best part of their existence in trying to obtain a higher elevation than their fellows; but I never climbed so singular a mountain path as that which leads from the Platteklip to the summit of Table Mountain. It follows a broad but steep and nearly straight ravine the whole distance. There are no dangerous precipices to skirt, no ridges to pass, such as the saddle back at Snowdon; but just one long, hard, climb by a steep but not perilous path, ever and anon crossing the ravine for the ease of the traveller, but for the most part rising straight to the summit. Yet, there is plenty of variety in the

journey. Kloofs, the existence of which is never suspected, open on either side, and rocks whose shape can be seen from below become bold and lofty cliffs that would by themselves make the reputation of a watering place. I can remember the many incidents and impressions of the ascent,—the hearty laugh which rang along the defile when one or other of the party stumbled in the darkness, spite of his trusty staff, the sobbing of the wind about the rocky recesses just before the dying of the old day, the breaking of the dawn upon a thousand strange fantastic shapes, and the soft brightness of the stars as they faded slowly before the advancing light. I must confess that I, for one, did not reach the summit before the sun rose; but I was not far off, and looked wistfully to see what it was doing with the world below. But it was not easy to say. For some time nothing could be discovered but a vast sea skirting the mountain and stretching away to the horizon at all points. What could it be? It must surely be the sea, for it is covered with tiny wavelets, sparkling like crystals in the growing light, and driven as if before a light wind to a shore in the rear of which loomed mountain ranges, stretching away into a distance from which the darkness had hardly gone. And yet the surface of the sea was white as opal and soft as flakes of snow. And yonder to the left is a rounded dome, looking black as ink and standing like a solitary island, with the white breakers seething all around. Everything seems strange and unearthly. Yet surely I know the shape of that rounded dome. Yes, I see clearly, as the light increases, it is the Lion's Head, just emerging from what must surely be a sea of vapour. One by one dark openings like "breathing holes" in the ice floes

begin to appear, and through them, as the sun mounts higher, I can see the dark waters of Table Bay. Half an hour more and the deception is all over; the vapours, thinking they have shown enough for one morning how they can deceive simple people, wreathe themselves in ghostly shapes and disappear. Then the Blueberg hills and the mountain peaks, like "topmost Gargarus," stood out and "took the morning," and the blue bay dotted with ships, and the streets of Cape Town, and the winding roads, all filled the landscape; and with the clear view came distinctly the busy hum of life that told us that the world below was awake and stirring.

As to the appearance of the mountain on the summit, it was not quite what I expected. It was more rocky and broken and less of an open plateau. But from all points the view was glorious. Looking from three sides, it seems as if the spectator is standing on a huge rock set in the midst of the ocean. While on the fourth, a level waste of sand seems bounded by impassable mountains. I had hoped to witness sunset from some high point, but a heavy blinding rain sent us wet and weary to our homes and beds.

THE BOTANY OF TABLE MOUNTAIN.

"Not a tree,
A plant, a leaf, a blossom, but contains
A folio volume. We may read, and read,
And read again, and still find something new—
Something to please, and something to instruct
E'en in the noisome weed."

The vegetation of Table Mountain—its plateau, slopes, and kloofs—represents the botany of the Cape peninsula generally. On this the most southern part of the African Continent are to be found types of families of plants, genera and species, which are spread over a large portion of the continent, reaching from Cape Point to the Zambezi. Other species, again, are quite local, and confined in their range to Table Mountain and the mountains and kloofs away back to the Cape of Good Hope. Proteaceæ, Orchideaceæ, Irideaceæ, and other families have representatives on the peninsula which have not been found elsewhere. The true *locus natalis* of the beautiful silver-tree *(Leucadendron argenteum)* is the Cape peninsula, where it is found more or less plentiful on the slopes of dry secondary hills, sheltered from the sea breeze.

Looking landward from Table Bay during certain months—January, February, and March—the vegetation

of Table Mountain does not offer an inviting appearance to the botanist and collector. The whole aspect is brown, rigid, and scrubby. The largest tree seen above the line of villa gardens is the silver-tree, which, although in itself of great beauty, does not, in its dingy setting, add softness or beauty to the landscape of "brown heath and barren rock." But a closer examination of this apparently barren scene, and an exploration of its kloofs, valleys, and hills at any season, will well reward the naturalist with a rich harvest of rare and beautiful examples of the Cape Flora. The variety within this area is immense; the Flora of the Cape peninsula alone exceeding in number of species that of many of the old countries in Europe.

The conformation of the hills, and the influence of climate on their exposure, have arbitrarily determined the distribution of the plants over the surface of the peninsula. The northern and western sides, which are fully exposed to the sun, and may be called the *dry* face of the mountain, have a flora for the most part stiff, rigid, dwarf in habit, and dingy in foliage. On the eastern or *humid* side, it is more extensive in species, and the vegetation altogether more leafy and luxuriant in habit. Filices and cryptogamic forms generally are not numerous on the western side. On the eastern side they abound. The graceful tree fern *(Hemitelia Capensis)* is found in the moist soils in the humid kloofs there in great luxuriance. There, too, are found the assegai wood *(Curtisia faginea)*, stinkwood *(Oreodaphne bullata)*, Cape Wild Vine *(Cissus Capensis)*, and many other ligneous plants which do not appear on the northern or western sides. One of the two

Cape Coniferæ *(Widdringtonia cupressoides)* occurs only on the eastern slopes of the mountain. Many other lesser forms are found on the slopes and in the kloofs on this side which are never found on the sides trending to the west and north.

On the summit of the mountain, plants of the northern and western sides occur in the largest proportion. Ascending to the top of the kloof there are not many indigenous plants to be met with. The exotic *Pinus pinea* and some others occur intermittent on the route. Good specimens of *Virgilia Capensis* are found in the hollow between the old and the new road; and to the right on the eastern slope of the Lion's Hill the silver tree is plentiful, surrounded by the sugar bush *(Protea mellifera)*, *P. melaleuca*, *Restios*, *Muraltias*, and many other small-foliaged, prickly, rigid-looking shrubs. Several forms of *Rutaceæ* are plentiful on the Lion's Hill. *Agathosma*, *Diosma*, *Coleonema*, *Adenandra*, and *Macrostylis* occur. Stapelias, dwarf euphorbias, crassulas, mesembryanthemums, and some other succulents are found on the main ridge and among the cliffs at the head. The usual bulbous plants occur all over the surface of the Lion's Hill; but principally on the slope facing to the east.

From the top of the kloof which divides Table Mountain and the Lion's Head to the entrance of the gorge at Kasteelberg, a great and interesting variety of plants are to be met. Heaths *(Ericas)* abound, the most common being *E. sebana*, *baccans*, *Plukeneti*, and *ceranthoides*. The latter is everywhere raising its brilliant scarlet heads of flowers in the most stony, arid-looking

spots at all seasons. Among lesser forms, lobelias, struthiolas, and many compositæ occur. At Stinkwater, a pleasant rivulet (the name not at all indicative of a quality in the water), the showy *Leonotus leonurus* and *Pelargonium cucullatum* are plentiful. On the dry slopes and ridges *Amphithalea*, *Diosma*, *Anthospermum*, *Muraltia*, *Elytropappus*, *Roella*, *Borbonia*, *Rhus*, and low-growing proteas compose the bush. The silver-tree does not occur on the western side facing the sea. *Leucospermum conocarpum* (the kreupel boom) is plentiful in groups on the lower slopes. *Protea melaleuca* and *glauca*—handsome shrubs—also occur. In the kloofs leading from the mountain, *Plectronia*, *Phylica*, *Cunonia*, *Royena*, and *Olea*, and some others with larger foliage, are found. On the sides of periodical rivulets and in damp places, *Brunias*, *Podalyrias*, *Psorleas*, and some *Umbelliferæ* are met. Here, too, in such localities, is found the most widely distributed Cape fern, *Todea Africana*. The herbaceous *Mohria thurifraga*, a very delicately scented fern, is everywhere during the rainy season. At certain seasons this slope of country between the mountain and the sea is a carpet of rich colouring with the blossoms of *Irideæ*, *Amaryllideæ*, and *Liliaceæ*; the following genera being well represented: *Aristea*, *Gladiolus*, *Babiana*, *Ixia*, *Trichoneme*, *Moræa*, *Antholiza*, *Watsonia*, and others, *Orinthogalum*, *Albuca*, *Cyanella*, &c. Amongst amaryllids, there is the beautiful *Belladonna* and *Nerine*, *Crinum* and *Hæmanthus*. With the first rains of the season *Oxalideæ* in many species appear.

The character of the flora does not much change from the cliffs to the sea. As the beach is approached,

some salsolaceous plants, a *Viborgia*, and one or two species of *Celastrineæ*, are found. Further along the coast, at the foot of the Sugarloaf Hill, near Hout Bay, is found the curious *Hydnora Africana*, or "Jackal's Kost," growing parasitically on the roots of *Euphorbia Caput-medusæ*. The species of grasses *(Gramineæ)* found here are of a coarse, tufty character. The creeping *Cynodon* occurs, and *Briza maxima* is everywhere. Ascending by the usual path through the Kasteelberg gorge to the summit of the mountain, *Euphorbias*, *Cotyledons*, *Stapelias*, and several species of *Crassula* hang from the crevices of the dry rocks on each side.

On emerging from the gorge at the top, whole fields in extent of a beautiful and stately *Watsonia* are seen. Here, too, are acres of *Agapanthus minor*, with its beautiful rich deep-blue flowers. This is a habitat of two remarkably handsome parasitical *Scrophularia*, viz., *Harveya Capensis*, with white, yellow, and rose-coloured, very conspicuous flowers, and *Aulaya Capensis*, with brilliant scarlet or purple flowers, somewhat even more distinguished than the first named. Both grow parasitically on the roots of the low shrubs common at this spot. The cultivation of these beautiful plants has engaged the attention of both professionals and amateurs, but as yet without success. Advancing further on the top, the brilliant *Rochea coccinea (Crassula)* spreads its dazzling scarlet flowers from every crevice. Heaths *(Ericas)* in many species are met at every step. Specimens of upwards of fifty species of this beautiful genus have been gathered in a single day on the summit of Table Mountain alone. *Compositæ* are numerous. *Osmitopsis asteriscoides*

takes possession of large breadths, to the exclusion of all other forms. This, though rather a repulsive-looking plant,

"Wears yet a jewel in its head,"

each part, indeed, yielding valuable medicinal properties. One species of *Chironia*, *Villarsia ovata*, and a *Sebea* represent at this elevation the gentian-worts of the Cape. Unlike their congeners in Europe, and other temperate countries, where they reach the elevated regions of perpetual snow, the gentian-worts of the Cape must be sought for on low sandy flats and damp vley grounds. *Convolvulaceæ* have only one representative on the summit—a *Cuscuta*. *Restiaceæ* are numerous everywhere. Sundews *(Drosera)* occur plentifully in every damp soil. Gladioluses are common—one, with lovely salmon-coloured flowers, opens in January-February. Several fine everlastings *(Helichrysium)* with white flowers are common. *Dilatris viscosa* is found on the summit of Table Mountain. Another species of the same genus is found on the Flats. Both are handsome and deserving of cultivation. The sugar bush *(Protea mellifera)*, so common on the lower slopes of the mountain, is not found on the summit. *Protea coccinea* and *Protea cynaroides*, and also some smaller types of the same family, have their habitat on the top. *Protea grandiflora* does not reach the summit, although plentiful on the eastern face and towards Hout Bay. *Villarsia ovata* and *Hydrocotyle centella* are found growing wherever there is moisture. Bearing to the right, after emerging from the gorge, the *Disa grandiflora* is met in a deep gully. The principal habitat of this lovely orchid is a deep ravine, the main depression on

the summit, beginning at the easternmost edge of the main plateau, and taking a zigzag course all over the mountain, but mostly trending southward ; it ultimately opens into Camp's Bay, between the Kasteelberg hills. From the beginning of this depression at the main plateau to Kasteelberg, the spongy turf, of which the bottom and sides of the ravine are composed, is studded and lined with the beautiful *Disa*.

During the winter season, and after heavy rains, the whole of this depression must be filled to a depth of many feet with water, and all vegetation submerged ; such a state of things is indicated by the driftwood on the sides of the ravine. In February, when the Disa is in flower, water has almost disappeared from the locality, a few shallow pools here and there being all that mark a course where torrents rush and rage at certain seasons. Early botanists and writers describe *Disa grandiflora* as being found only on Table Mountain, but late collectors have discovered it at distant places—notably on the Drakenstein mountains, and at the waterfall there, the Fransche Hoek mountains, Bain's Kloof, and Mitchell's Pass. Singly or in masses, the "Pride of Table Mountain," fondly named so by the Capeites, is a magnificent representative of Flora, and many are the pilgrimages made to her shrine on the top of the mountain during the flowering season. *Herschelia cælestis* and *Disa ferruginea*, both beautiful orchids, blossom at the same time as the *D. grandiflora*. *Herschelia* is found growing all over the summit, but principally on the Hout Bay side, in dry, grassy spots. *D. ferruginea* is distributed over the top in similar localities, but is not so frequent. Another very beautiful orchid

on Table Mountain is *Disa longicornis*, flowering in November, and found in every damp crevice on the shady sides of rocks towards Hout Bay. During the four months, November, December, January, and February, a century of species of terrestrial orchids are to be found in flower on Table Mountain and its eastern slopes, species of the following genera occurring: *Corycium*, *Pterygodium*, *Disperis*, *Bartholina*, *Disa*, *Penthea*, *Holothrix*, and *Herschelia*. At the base of the mountain, on the Hout Bay side, *Satyrium carneum* and *erectum* are found. There are several pretty dwarf *Indigoferæ* on the summit. The beautiful *Indigofera juncea* is found low down at Hout Bay. It is a very social plant, growing close together in large patches, often an acre in extent. The "roodels" *(Cunonia Capensis)* is very generally dispersed all over the Cape peninsula,—on the summit of the mountain and in the kloofs on all sides. The palmiet *(Prionum palmita)* occurs on the summit, and lines the margins of watercourses to the lower valleys, growing most luxuriant on low lands liable to be periodically flooded.

Amongst ferns, *Todea Africana* attains a stately height on the summit of Table Mountain ; it is very frequent, often in situations quite devoid of moisture in the soil. *Glechinia argentea* and *polypodioides* are to be met in profusion in the crevices of rocks, in damp, shady situations. *Schizæa pectinata* occurs here as well as on the sandy flats. *Schizæa tenella* is very rare on Table Mountain. *Adiantum*, *Hymenophyllum*, *Blechnum*, *Asplenium*, *Pteris*, *Lomaria*, *Nephrodium*, *Acrostichum*, *Asplenium*, and some other genera are found on the top. Mosses or lichens are not numerous, and little known.

Descending by the gorge facing Cape Town, the surrounding botany is not different from that of the western side at Camp's Bay. At the point where the lower red sandstone rests upon the granite, the pretty fern, *Allosorus calomelanos*, is found growing on the dry rock. It is not found on the western side. On the right hand side, half way down the gorge, there is quite a field of *Nerine sarniensis* growing in company with restios, coarse grasses, and a little shrub, *Penea mucronata*. This little *Penea* occurs all over the summit and on the higher slopes. Lower down, at Platteklip, where the dark-grey granite is exposed in the bed of the stream, *Phylica cordata*, *Polygala myrtifolia*, and some others named as occupying the western face, form a bush on the banks of the stream. The modest-looking *Diasia iridifolia* is common here in dry and shady situations.

The *Virgilia Capensis*, with its beautiful honey-scented flowers, is plentiful here, and attains the dimensions of a tree. Some *Lobelias*, *Commelyna*, and *Hydrocotile Asiatica*—the latter a plant of wide geographical range—grow along the damp margins of the stream. At this point naturalized exotics begin to make their appearances with the line of villa gardens,—

> "Where groves arranged in various orders rise,
> And bend their quiv'ring summits in the skies.
> The regal oak, high o'er the circling shade,
> Exalts the leafy honours of his head.
> The spreading gum a differing green displays,
> And the smooth willow in soft whispers plays.
> The kuur that blooms in Spring's eternal prime,
> The spiry poplar and the stately pine."

LION HILL CLIFF, TABLE BAY.

STARS in the sky—eve's shadow on the hill—
And, save the voice of ocean, all is still!
The light leaves scarcely with a tremor play,
And dewy blossoms droop along the spray.
But the white surge comes bounding to the shore,
And the cliff answers to its angry roar.
For, where the Cape of Storms heaves high its steep,
The clear South-Easter foams along the deep—
Whirls the wild spray in gusts of driving snow,
And sweeps with its salt shower the reeling prow;
While round each winding bay and jutting rock
The glassy swell rolls with its thunder shock—
Or, deepening, vast and sullen, heaves away
To the lone isles beneath descending day.
Here, vaulting like a giant steed, his mane
Tossed in white splendour back along the plain
Of the streaked sea—it booms against the feet
Of the rude granite in a snowy sheet;
The baffled bark spreads wide her drooping wings
That flap and rustle as she idly swings,
High o'er her shadow, on the burnished seas,
From which the mountain crest holds back the breeze—
Yet rolls the hull, with slow and heavy sweep,
Heav'd on the bosom of the panting deep.

In their primeval silence, through the skies
Shoot forth the clustering stars with wakening eyes.
In Evening's bosom glowing, Hesper's rays
Streak the dim ocean with a flutt'ring blaze—
Whose misty spire shoots playfully on high,
Where the wave mingles with the dark'ning sky.
Now, like an angel banner on the deep,
The star, broad-blazing, lingers, till it steep
Its gather'd folds of radiance where the West
Reflects the unpeopled heaven on the breast
Of seas now dimm'd, which mourn—their glory gone,
The lifeless splendour of an empty throne.
Well might'st thou, star of beauteous glory! be
To darker-hearted men a deity.
But yet bursts forth the flash of Sirius wildly,
And still Centaurus' radiance beaming mildly.
And thou—of equal splendour—nameless one!
Whose reddening glory, to our sires unknown,*
Nursed in the secret of a boundless home,
The youngest mystery of heaven, has come
To wondering eyes—what tidings are in thee,
Spoke from the depths of dread infinity?
Was it for judgment that thy fires awoke
When round fair systems glowing whirlwinds broke,
And awful Justice in red vengeance hurl'd
Into thy fire-struck waste a peopled world?
Was it a power of Love? that clearer skies,
Ruled by a brighter sun, should meet the eyes

* The bright star in Argo, subject to periodical changes. It had, when these lines were written, been on the whole increasing in brightness since 1829.

Of higher forms of being, in the bowers
Which deck the face of fairer worlds than ours?
Where wast thou? brightening one! in the old time
When Europe woke, and caught the hope sublime
That other lands might be in the lone waste
Of ocean, whose chill mystery embraced
Her narrow bound of shore, and found—no track
Of death—no waste of fire—no black
And withering region of eternal storms—
No dim and death-like end of space, where forms
Of cold and ghastly desolation lead
To the drear mansions of the shadowy dead;
But the glad sea spread wide its azure plain,
And gave the laughing sky its hues again,
As beauty's youthful glance, in years gone by,
Smiled to her image in a sister's eye.
What the weak radiance of thy glory, when—
Fresh to the watchful eyes of hardy men—
Awoke our sky's bright honours, of which thou
Wert but a dim, faint ray? and when the brow
Of the steep cliff, in mural majesty
Rose up with gloomy grandeur from the sea,
And, sweeping on, in savage rudeness, led
To the last peak, against whose rugged head
Reel'd on the polar storm—while deep below,
The swell, proud heaving with its crest of snow,
And fierce, wild shout, told in its angry mood
How jealous Ocean loved his solitude?*

* As is well known, the first attempt to weather the Cape was unpromising, and gave origin to the name *Cabo Tormentoso*.

Changes have grown with thee. Here, where I stand,
The dark-brow'd children of a sunny land
In bright day basking—like the startled snake,
Shrank in wild wonder, till amid the brake
Glowed the still terror of each widening eye—
As first the white-sail'd bark swept proudly by.
No more they cluster round the weeping rill,
No more their wild cry echoes from the hill.
All traceless as that wild cry's vanish'd tone,
Forgotten is their life—their graves are gone.
And what shall be thy destiny to come?
Shall fresher floods burst from the awful home
Where dwells the strength of thy far-spreading flame—
And, circling with light's giant speed, proclaim
Onward and onward still from sun to sun—
As spreads the sharp note of the signal gun,
Over the echoes of the earth—proclaim
The mighty presence of the Awful Name?
He smiles—thou beamest like a seraph's eye;
He frowns—thy bright rays perish in the sky.
We love thee as thou art—we love to see
Thy golden rays, in night's obscurity,
Mingle with heaven's wide sheets of starry gleam,
Blent with festoons of darkness.* Thy bright beam
Glimmers below, as shadows dimly trace
Where busy men, of many a clime and race,
Have raised their homes, half hidden in the brake
Of the dark pine-trees, whose brown shadows take
The sting of fierce wrath from the glowing sun,

* Magellan's clouds, and the celestial spaces round the constellation Scorpio.

Tempering his rays to mercy. Till alone,
As the eye sweeps along the dusky shore,
Gleams low the house of prayer, and clustering o'er
The sea's wild verge, the silent dwellings stand,
Where late, with small feet printing the deep sand,
And small hands clapping in their youthful glee
And eyes that scanned the wonders of the sea,
And busy lips, that questioned eagerly—
Full many a lov'd one wandered while the look
Of fond affection followed, and forsook
That gaze of deep'ning pleasure, but to watch
The road's long sultry line, and earliest catch
The glittering of the wheel which brings him near
From life's harsh scenes of conflict, gain, or fear,
Whom looks of tenderness and words of love
Have welcomed to his home. But now, above,
Around, below—as from this mountain crest
I gaze into the dusky shadows—rest,
Silence, soft dewy hours, and night's dun pall
Have cast their veil of peace upon them all,
Till Morn restore her thirsty glories back,
And mightier Day resume his fiery track.

J. ADAMSON.

THE BUSHMAN LANGUAGE.

EVER since I set my foot on the shores of South Africa, the Bushmen and their language have been to me a subject of particular interest,—but at the same time, one for the elucidation of which I have been able to do very little. Some Bushman words and phrases in Lichtenstein's Travels, and a short vocabulary in Arbousset's "Relation," &c., were then all that was known of this language. It has been my endeavour to obtain further material for a knowledge of this interesting people; and the additional information which I have been able to collect (unsatisfactory as it is in extent) has impressed upon my mind this truth, that the Bushmen have been separate from their neighbours, the Hottentots, for at least many thousands of years. My own observations on the Bushman language are partly derived from a manuscript in Sir George Grey's Library, furnished by the Rev. G. Krönlein, now Superintendent of Rhenish Missions in Great Namaqualand. In this manuscript Mr. Krönlein has noted a few words, and also some phrases, of the language of the *!Nusa* Bushmen.* In addition to this, I have myself collected many specimens

* *!Nusa* means Cisgariepian, from the Nama point of view, *i.e.*, on the right side of the Orange River. The *!Nusa* Bushmen live in the Dorstveld, which lies to the East of Great Namaqualand.

of the Bushman language from the mouth of a Bushman convict, from the Achterveldt, in this Colony. My informant was, unfortunately, not a pure Bushman, but the son of a Bushwoman and of a Koranna man. The task of taking down as exactly as possible the sounds of this language* was, of course, a great difficulty, for as many as six different clicks, formed either by the tongue or the lips, can at the least be distinguished here. When endeavouring to give the right mark for each click, I have no doubt frequently erred, as my ear is not very acute, nor accustomed to distinguish these sounds; but as the clicks and other difficult sounds are not contained in the grammatical portions of the words, my observations on the structure of the language are not affected by this deficiency.

To show that the Bushman language, as far as we are acquainted with it, is entirely different from the other tongues of South Africa, we will glance briefly at the structure of them all.

The South African languages, with the exception of the Bushman, all belong to one of two families. One of these great families of language is that called the *Bântu* (Kafir a-ba-*ntu* 2. "men, people," *par excellence* "black people"), which contains Kafir, Setshuâna, and the languages of Mosambique, Zanzibar, and Damara Land, the dialects of Bunda and Kongo, and a great number of other languages higher to the North, and extending west at least as far as Sierra Leone. The other family—that

* To prevent mistakes, I must mention here that Wuras' "Outline of the Bushman Language," a Manuscript of 8 pages quarto, presented by the Author to Sir George Grey, 11th Nov., 1858, could not be consulted by me in my Bushman studies.

of sex-denoting languages—is represented in South Africa by one member only, the Hottentot, the dialects of which do not differ essentially from each other. North Africa is full of these sex-denoting languages, and among the members of this family must also be ranked the languages of the most highly civilized nations upon earth. Our own languages belong to this great family, and are, therefore, nearer akin to Hottentot than they are, for example, to Kafir. The Hottentot language is in so far highly valuable, as it is the one among the sex-denoting languages known to us that has retained the most primitive features of their structure,—which have, of course, become greatly changed in the processes of development which the languages of more highly civilized nations have undergone.

It is true that many philologists, and even some comparative philologists, whose opinion is otherwise entitled to much respect, deny *in totô* any relationship between such languages as the Hottentot and our own,—the Aryan or Indo-European. They maintain that languages are only akin to each other when agreeing in the phonetic material ("Lautstoff") of which they are constructed. (Jülg, "Über Wesen und Aufgabe der Sprachwissenschaft," Innsbruck, 1868, p. 13.) But when languages pass through successive stages of development, it is clear that their material may become so different as to render its comparison impossible with that of other members of the same family which have travelled in different directions. Yet these very languages may show unmistakable proofs in their whole structure that they have issued from one common stock, and have originally possessed the same grammatical features.

Still we are not here to defend our theory respecting the relationship of the Hottentot language to our own,—but rather to show what are the essential differences between Hottentot and the Bântu languages on the one hand, and between Hottentot and Bushman on the other.

The Hottentot and Bântu languages have one very essential feature of their structure in common. In both, as a rule, each noun originally consists of two portions, one of which we will call the stem, and the other the representative element. The latter is a part of the noun which is also used to represent the whole noun, and in this manner either appears as a pronoun, or combines with other parts of speech, which are thereby referred to the noun.

For example, in the Zulu noun a-**ba**-*ntu* "men, people," **ba**- is the representative element, which is either used in full, or in an abbreviated form, in all places where the noun a-**ba**-*ntu* is implied, as

A-**ba**-*ntu* **b**-*a-mi* a-**ba**-*bi*, **ba**-*ya-tanda*
People they of me who (are) they ugly they go love
i-**zin**-*komo* **z**-*a*-**b**-*o*, *n*-e-**zin**-*ja* **z**-*a*-**b**-*o*
cattle they of them, and dogs they of them
e-**zin**-*x̂le* **zi**-*ya*-**ba**-*tanda*.
handsome they go them love.

My ugly people love their cattle, and their handsome dogs love them.

Here the noun a-**ba**-*ntu* "people" is always represented by the syllable **ba**- which, in its full or abbreviated form, has the force of a pronoun and stands for the whole noun; and again in i-**zin**-*ja* "dogs," the syllable **zin**- is the representative which recurs wherever the dogs are referred to.

This will be clearly seen if we use both nouns in the singular, and say

U-**mu**-*ntu* **w**-*ami* o-**mu**-*bi* u-*ya-tanda* i-**n**-*komo*
Man he my who is he ugly he goes love ox
y-*a*-**ke** *n*-e-**n**-*ja* **y**-*a*-**ke** e-**n**-ǂ*le* i-*ya*-**m**-*tanda*.
it his and dog it his it handsome it goes him love.

My ugly man loves his ox, and his handsome dog loves him.

Here the **mu**- of u-**mu**-*ntu* "man" is the representative part, which, either in its full form or contracted to **m**- or **w**-, or changed (from a more ancient form **NGUA**-) into **-ke**, enters into the composition of all parts of speech which refer to the noun u-**mu**-*ntu*. In i-**n**-*ja* again the **n**- reappears either as such, or as **i**- or **y**- (the **n**- being a contraction of the more primitive form **NI**-) in all.

Or let us take, instead of u-**mu**-*ntu* "man, person," the noun i-**si**-*ta* "enemy," in which the syllable **si**- is the representative part,—then the sentence assumes the following shape,

I-**si**-*ta* **s**-*a-mi* e-**si**-*bi* **si**-*ya-tanda* i-**n**-*komo*
Enemy he of me who he ugly he goes love cow
y-*a*-**s**-*o*, *n*-e-**n**-*ja* **y**-*a*-**s**-*o* i-*ya*-**si**-*tanda*.
it of him, and dog it of him it goes him love.

My ugly enemy loves his cow, and his dog loves him.

These examples are sufficient to show the peculiar structure of the Zulu language, in which the nouns are divided into thirteen classes, by being formed with thirteen distinct prefixes, which are also used to represent their respective nouns. The structure of all South African languages, excepting Hottentot and Bushman, is essen-

tially the same as that of Kafir and Zulu, with regard to this concord and the classification of the nouns. The Hottentot language also possesses the same method of representing a whole noun by one of its parts; but in Hottentot the representative portion is not at the beginning of the noun (as prefix), but at the end (as suffix). Thus, in the word *au*-**ku**, "men," **-ku** is the representative element, which (in this or an abbreviated form) throughout represents the noun wherever the latter is to be indicated.*

//Nā au-**ku** *si-da !hau-s-di*-**ku**, */nī !ā-s-!na*

Those men our tribe's they, another village-in

//an-hā-**ku**, *ho*-**ku**-*da-ra*, *kare-da-ra goma-n ā*-**k**-*a*,

living they, find them we do, praise we do cattle of them,

tsī-**ku**-*ke-ra /khai-da /kam tsāu*-**n** *//ēi*-**ku**-*di*-**n** - *χa*.

and they do present us two calves theirs them from.

The men of our tribe who dwell in that village, we find them, we praise their cattle, and they present us with two of their calves.

To take the last word *//ēi*-**ku**-*di*-**n** "theirs," **-ku** is here the representative of the noun *au*-**ku** "men," and with *//ēi-* forms the emphatic pronoun *//ēi*-**ku** "they or them" (meaning "men"). By adding to this pronoun *ēi*-**ku**, the suffixed genitive particle *di* (= English *'s*) and the pronominal element **-n** (as representative of *tsāu*-**n** "calves"), the possessive pronoun *ēi*-**ku**-*di*-**n** "theirs" (*i.e.*, the men's calves) is formed. And *goma*-**n** "cattle" and all other nouns formed with the suffix **-n**, have (like *tsāu*-**n** "calves") this particle **-n** as their representative

* It may be convenient here to explain the symbols used to indicate the several clicks. The four most marked are the following: 1. The dental click = /; 2. The cerebral click = !; 3. The lateral click = //; and, 4. The palatal click = ≠.—[See Bleek's Comparative Grammar, pp. 12—14.—ED.]

or pronominal element; and again, nouns like *!hau*-**s** "tribe," and *!ā*-**s** "village" are represented by their final **-s** or its fuller form **-si**. This will be clearly seen if, in the above sentence, we exchange the noun *au*-**ku** "men" for *tara*-**s** "woman," and say

//Nā tara-**s** *si-da !hau-s-di*-**s**, *|nī !ā-s-!na //an-*
That woman our tribe's—she, another village-in dwell-
hā-**s**, *ho*-**si**-*da-ra*, *kare-da-ra goma-n ā*-**s**-*a*, *tsī-*
ing she, find her we do, praise we do cattle of her, and
s-*ta |khai-da |kam tsāu*-**n** *//ei*-**s**-*di*- **n** - χ*a*.
she does present us two calves her's them from.

The woman of our tribe, who is rich and lives in that village, we find her, we praise her cattle, and she presents us with two of her calves.

There are in this manner eight different representative elements in Hottentot, as there are thirteen in Kafir, and sixteen in some of the languages akin to Kafir.

To explain the causes of this principle of representation, to show how the systems of classification of the nouns which are based upon it differ from each other in character, and to discuss all the other important questions involved in this structural peculiarity, would lead us too far; and I must refer any reader who may be curious on this subject, to the second part of my Comparative Grammar. It is enough for us to state here that we have not been able to discover any trace in Bushman of such a system of representation of the nouns; and we cannot but conclude that it does not exist in this language. This may be explained in two different ways. Either the Bushman language never possessed the faculty of thus representing a noun by one of its parts, or, at least, had

not a regular set of representative elements or pronouns, and has not developed a classification of the nouns dependent upon their forms of concord. If so (and there is no certain proof against such an assumption), the Bushman would belong to a very low order of language,—a stage in which no true pronouns (*i.e.*, representatives of the nouns) were developed. But it may also be that Bushman, like many other languages descended from those in which the nouns were originally divided on the basis of this system of representing a noun by one of its parts, has lost this characteristic entirely. Thus the Polynesian languages appear to me to be descended from one which originally possessed all the characteristics of that system of representing the nouns, which is still to be met with in Kafir and the kindred Bântu languages. Yet, at the present time, the Polynesian nouns no longer show any trace of this peculiar grammatical structure, they are not divided into classes, and they have only one set of pronouns to represent them indiscriminately. The Persian language, too, although descended from a sex-denoting mother, no longer distinguishes the classes (or genders) of nouns and pronouns which still exist in its kindred languages. It may also be thus with the Bushman tongue. It may have descended from a language possessing a rich system of concords based upon the representation of each noun by one of its parts. Such a system may have dwindled away (a process of which we have so many examples), and all traces of its existence may thus have disappeared. This is possible,—but *primâ facie* not so probable as the reverse proposition, that the Bushman language belongs to a lower stage of development, in

which neither true pronouns, nor grammatical classes (or genders) of nouns, had any existence.

The only instances which I have met with of anything like forms of concord in Bushman, are the adjectives "small" and "large," which, in this language, have different forms for the singular and plural respectively. Thus */ĕri* is the singular of the adjective indicating small, and */ĕn̄* the plural,—*≠u̯iya* is the singular of the word for "large," and *≠u̯ita* the plural.

//kuken e !oai gan /ĕri "one veldschoen is small;"

//ku//ku e !u gan /ĕn̄ "the two veldschoens are small;"

//kuka gan //u ≠u̯iya "the veldschoen is large;"

//ku//ku e !u gan //u ≠u̯ita "the two veldschoens are large;

≠nūũ yan ≠u̯iya "the seacow is large;"

≠nūũ e ≠oaya yan //u ≠u̯ita "the many seacows are large;"

n !kăx̌en n !u gan //u /en "my two sisters are small;"

n !kăxu !oai gan /eri "my one sister is small."

We should lay more stress upon this grammatical peculiarity, and conclude that we could discern in it the remnant of a former system of concords,—if it were not that, as yet, it has only been observed in the sentences taken down from the mouth of one informant, who was not a pure Bushman. Yet it is difficult to see how he could have introduced this grammatical feature into the language, as the Hottentot construction is by no means identical in this instance.

Many nouns in Bushman vary in their terminations according to their position or use. Thus veldschoen may be *//ku ki*, *//ku ka*, or *//kuken*. Our knowledge of this

language is not yet sufficiently advanced to enable us to discern the exact value of these endings; but it does not appear that they have anything to do with the concord, or even clearly with the distinction of singular and plural. In the other South African languages, the plural of nouns is indicated by the correspondence of those representative parts of the nouns upon which the concord hinges. Some of these representative parts indicate a singular meaning, others a plural, or even (as in Hottentot) a dual value. As a general rule, every concord-indicating derivative particle of the singular regularly corresponds to one of the plural (or dual). Thus a regular system of exchanges of singular and plural (or dual) derivative prefixes has been established. In Zulu a noun which has in the singular the representative part **li-**, always has in the plural a form with the representative part **ma-**, as i-**li**-*zwe* "country, land," pl. a-**ma**-*zwe* "countries." Similarly, in the same language, **si-** is changed in the plural into **zi-** (i-**si**-*tya* "dish," i-**zi**-*tya* "dishes"), **n-** into **zin-** (i-**n**-*to* "thing," i-**zin**-*to* "things"), **mu-** into **ba-** (u-**mu**-*ntu* "man, human being," a-**ba**-*ntu* "people"), &c. In Hottentot the representative parts (which stand here at the end of the nouns) are similarly and still more regularly exchanged for the purpose of distinguishing the number, as for instance, *khoi*-**p** "man," *khoi*-**ku** "men," *khoi*-**kha** "two men,"—*tara*-**s** "woman, wife," *tara*-**ti** "women, wives," &c. As the Bushman nouns do not appear to possess any representative parts, the singular and plural cannot, of course, be distinguished by the mutual correspondence of such parts. The mode in which singular and plural are distinguished from each

other in the Bushman language is far more primitive, *viz.*, by reduplication of the first portion of each noun. Thus

/nūm is "beard," and */nū/nūm* "beards;"
//nū "ear," *//nū //nū ntu* "ears;"
//nōa "foot," *//nōa //nōa* "feet;"
/nīn "house," */nī /nīn* "houses;"
tu "mouth, lip," *tŭtŭ* "mouths;"
//kun "wing," *//ko //kun* "wings;"
kobo "black man," *kokoboken* "black men;"
kū "arm," *kukun* "arms;"
tsaǂu "eye," *tsătsăǂen* "eyes;"
≠koa "leg," *≠ko ≠koaken* "legs."

In some of the latter nouns it appears as if the ending *-n*, *-en*, or *-ken* were, besides the reduplication, a distinguishing mark of the plural; but as this ending sometimes certainly also occurs in the singular, it would be rash to consider it as the indicator of the plural. The reduplication, on the contrary, has as yet only been observed in the plural of nouns.

This particular employment of the process of reduplication for the purpose of forming plurals is, as far as I am aware, peculiar to the Bushman language, although of course the reduplication of the whole, or of some part, of a word is a grammatical feature of frequent occurrence,—to be met with in most languages. It generally intensifies the meaning, or indicates repetition, frequency, or force. In Hottentot, it is remarkable that causative verbs are produced by reduplication,

as *ōa* "to be full," *ōa ōa* "to fill;"
≠an "to know," *≠an ≠an* "to inform;"
!anu "to be pure," *!anu !anu* "to purify."

The same use of reduplication, for the purpose of forming causatives, is also met with in the Indo-European or Aryan languages, besides several other employments of the method of reduplication,—as, for example, in the formation of perfects, Latin *curro* "I run," *cucurri* "I have run," &c. In the Aryan or Indo-European languages, however, reduplication is no longer effected by a repetition of the whole word, or even of the whole stem of the word, but merely by repeating the first consonant and vowel of the stem. In Bushman, as we have seen, the reduplication has in many cases been reduced to the same scanty measure; and most frequently only the consonantal beginning and the first vowel of a noun are repeated to form its plural.

Next to the plural, the feature as yet most clearly perceived with regard to Bushman nouns is the formation of the genitive. This is formed in the South African languages in two different ways, the one corresponding to the use of *'s* in English, as "the lion's tail," the other to that of the particle *of*, as "the tail of the lion." The latter is the only construction met with in the Bântu languages, where, however, the genitive is always referred to the noun which it defines by a pronominal element in the manner of an adjective, as Setshuâna se-*aX̌la* s-*a* mo-*sari* "the hand that of the woman," ba-*sari* b-*a* *kXosi* "the wives they of the chief," &c. Here the genitive particle *a* "of" is always preceded by the representative element of the preceding noun. In Hottentot, also, one of the genitive particles precedes the part of speech which is put in the genitive, but this prefixed genitive particle *ã* (*i.e.*, nasalized *a*) is restricted in its use

to pronouns, as *tara*-ti *ā*-p "wives of him," *i.e.*, "his wives." A prefixed genitive particle, which is probably identical with this Hottentot *ā*, is met with in some more Northern sex-denoting languages, as *an-* or *na-* in Berber, *n-* in Haussa, Egyptian, and Coptic, and *a-* in Ethiopic; and, in these languages, the use of this genitive particle has a far wider range than in Hottentot.

The usual way, however, of indicating the genitive case in Hottentot is by means of the suffixed genitive particle *di*,* corresponding to (and probably even identical with) the English *'s*. The genitive formed with this suffixed particle *di* can either precede the noun it defines, or follow it. If it follows, it must, however, be referred to the noun it defines by the representative element or pronoun, and is thus constructed in an adjectival manner. For example, "the chief's wife" is either simply *gau-au*-p-*di tara*-s, or *tara*-s *gau-au*-p *di*-s (wife chief's she), "the chief's wives" *gau-au*-p *di tara*-ti, or *tara*-ti *gau-au*-p *di*-ti. Similarly, "the chief's cattle" is either *gau-au*-p *di guma*-n, or *guma*-n *gau-au*-p *di*-n. In the former position, when the genitive precedes the noun which is to be defined, the genitive particle is frequently dispensed with;—thus, instead of *gau-au*-p *di guma*-n, one hears also the abbreviated form *gau-au*-p *guma*-n "chief's cattle." (Tindall, p. 20.)

In Bushman the genitive particle is also suffixed to the noun in this case, but as there is no sort of concord by which the noun in the genitive can be referred by a

* The Arabic termination of the genitive is *-i* (said to be also met with in the Assyrian language), whilst the Saho (an Abyssinian) language has still retained in this case the more primitive form *-ti*. The Indo-European genitive termination is also probably reducible to the same original form *-ti*.

representative element to the noun which it defines, the noun in the genitive can only precede the other noun. The suffixed genitive particle is also perfectly different in Bushman and Hottentot, the Bushman particle being *ka*, *ga*, *ya*, or *a*; *e.g.*, *//ka* is "lion," and *//ka ga ãn* "lion's flesh," *sa ga an* (Krönlein) "eland's flesh," *//kã ga !nu* "lion's foot," *i.e.*, "lion's traces," &c. This Bushman genitive particle may, like the corresponding one in Hottentot, be also totally omitted. In fact, the cases of such omission appear to be more frequent than those in which the genitive particle is employed, *e.g.*, *//kã ≠kui* "lion's tail," *χoro ≠kui* "ox tail," *koro ≠kui* "jackal's tail," *toï' ≠kui* "ostrich tail," &c.

The difference in the form of the suffixed genitive particle in Hottentot and Bushman is as significant as the difference in the use of the prefixed genitive particles "of" in English and "de" in French. Although the former is identical in meaning with the French particle, the difference in its form shows at what a distance English grammar stands, genealogically speaking, from that of the Romance languages.

One other point of great and conclusive dissimilarity between Bushman and other South African languages is discernible in the forms of the so-called personal pronouns. They are, as far as we know them,

ṅ "I," *a* "thou," *ha* "he, she, it," *i* "we," *u* "you," &c.

Of the numerals, the second (*!ku* or *!u*), at least, offers no resemblance either to the same numeral in the Bântu languages, or in Hottentot; and beyond two, every higher number is *≠oaya* "many," although the Bushman

may indicate with his fingers to some extent the exact number. *e.g.*, *≠oaya*, showing four fingers, *i.e.*, "as many as four," will indicate four, and *≠oaya*, showing seven fingers, seven.

In this deficiency of higher numerals the Bushman race appears to be even more primitive than the Australian tribes, which generally have distinct names for the numerals as far as "three" or "four." But the exceedingly ancient character of the Bushman language appears to be in no way better vindicated than by their very curious phonetic system. It is customary to class Hottentot and Bushman together under the category of clicking languages; and, to a certain extent, this is correct. But in the frequency of these strange sounds, in the number of their varieties, and in the range of organs which are employed in their pronunciation, the Bushman tongue by far exceeds the Hottentot language. In Bushman, clicks are not merely produced by the tongue, but also by the lips. There can be no question that among the sounds of human language clicks are those which it requires the greatest effort to produce. The study of the history of language shows us that the further the speech of a people develops, the more it throws off such sounds as impede the pronunciation, or render it more difficult. Those languages, therefore, in which the sounds are easiest of utterance are the farthest removed from the primitive phonetic systems of human speech, whilst those which abound in uncouth and almost unpronounceable sounds must be presumed to have better retained their ancient phonetic features.

We have said enough here, with regard to the Bushman language, to make it clear that exceedingly little is known of it, although what we do know is sufficient to render the study of this language highly interesting. Would that, before the few remnants of this widespread race become quite extinct, some one were found to study their language thoroughly, and through it their mental and social condition! It is to me a wonder that, in our times, when so much diligent application is bestowed upon the mute remains of those races who lived in the so-called pre-historic age, the living nations, in which the mind and character of probably still older times have to so great an extent been preserved, should receive such scanty attention.

CLASSICAL STUDIES

AND THEIR

RELATION TO COLONIAL EDUCATION.

To those who watch the tendency of intellectual movements in Europe, and especially to those who are practically interested in education, it will be a mere commonplace to say that there has been of late years, and is at present, much controversy as to the best mode of training youth for the duties of manhood. The traditions of centuries have given to the classical languages a place in the educational scaffolding, from which one great party is bent on dislodging them, and in which another party is equally anxious to retain them. Rightly or wrongly, the higher education of Englishmen has hitherto rested on a classical foundation. And to this fact the advocates of an exclusively classical training point with triumph as a strong argument in their favour. Look at the great names in English history, they say,—our greatest statesmen, orators, divines, jurists. See what classical education has done for them. What need of further witness? The training which has achieved such results must be the true one. The tree is known of its fruits. The wisdom of the past is justified by a long line of goodly intellectual children.

The argument is worthless, or nearly so. It is just the old fallacy, "*Post hoc, ergo propter hoc.*" They have become great in virtue of their training, says the classical conservative. No, in spite of their training, says the modern innovator. It was *in* them to do great things, and become great men, and not even the errors and absurdities of their training could crush them. You tried to sink them in your Stygian pool, and poison them with your Avernian vapours; but they floated and flew away, for all you could do to kill them—crippled, but not consumed; and, at length, on fairer waters, and in purer air, they regained the power of which you had well nigh robbed them.

Of course, this reply is pertinent, and, as far as it goes, unanswerable. It brings the question to the true ground on which the battle must be fought. Can it be shown that the classical training of these men has been an essential factor of their greatness? Could the same, and even larger results, have been gained by a different training? Can it be shown that the debt which this generation owes to the next would be more profitably paid by a total change in the education of those who are to succeed ourselves on the stage of life?

To answer these questions we must have a clear idea of the objects at which a true education should aim; and then we must see to what extent these objects are secured by the present system, and whether they are likely to be more effectually secured by the proposed changes in the system of education.

And here let it be distinctly understood, as a first principle, that the object of education is not the acquisi-

tion of knowledge. This is, indeed, a constant accompaniment, but it is in no sense the specific object of true education. When the intellectual powers have been developed by liberal studies, the student is in a position to gain information for himself; and the processes by which he does so will, of course, assist the further development of those powers. But, from our point of view, the information thus acquired will still be but a measure and a test of education, not the thing at which it aims. We send our boys to school and our young men to college, not for the sake of the knowledge which they bring away, but for the sake of the mental training which usually accompanies the acquisition of knowledge. The information may have been gained, while the education remains *thoroughly* defective. On the other hand, the education may be sound and *thorough*, while the actual information secured in the process is comparatively of small amount. In a word, the true education imparts power to the student, whereas information is but the gathering up of the results of another's power.

As a corollary to this, it is evident that those subjects on which information is most valuable and desirable do not necessarily furnish the best basis of a liberal education. This is the fallacy that vitiates the argument of many advocates for a total change in the education of our youth. Teach boys things that will be useful to them in after life, they say. Why spend their most precious years in studying languages which are never spoken, and a literature that will never interest them hereafter? If you must have foreign languages, let them at least be living ones. Give them French for Latin, German for

Greek, Shakspere and Milton instead of Æschylus and Homer. It is far better for them to learn to write an honest letter in French or German prose than to waste good paper and precious time in torturing the stately lines of our great poets into wretched imitations of Ovid and Sophocles. We want the useful, not the useless, as the basis of our boys' education.

The answer to much of what is thus urged will be offered as we proceed. But, surely, we may touch our eager friend on the shoulder, and say to him, Gently, good sir! Are you not confounding things that differ, and quietly begging the whole question? If gaining useful information is the one end and aim of education, by all means let the classical tongues go by the board. Pitch them into Tartarus, where so many boys have devoutly wished them these many years. But, then, that is not the end of education. You send your son to school to fit him for the duties of life—to cultivate his understanding, his judgment, his imagination, in order that he may bring to the work of after years all his powers in the highest state of culture and efficiency. Your argument, to be worth anything, must prove that the culture to be gained by the study of modern languages is as real and thorough as that which is the result of the studies you would abandon. Till you have shown this, you have not made out your case. The judgment of the court, on the evidence, is against the plaintiff, with costs of suit.

And here it is worth while to examine somewhat more closely this question of the superior utility of certain studies. There is a vague impression abroad that scientific studies are useful in a sense in which classical studies

are not useful. Most teachers have received, at some time or other, some such message as this from the parent of a pupil: "I wish my son to attend particularly to his mathematics, and give less attention to classics, as he is not intended for a learned profession. Let him give up his Greek and commence Algebra, which will be more useful to him." I fear the sender of this message would look rather foolish if closely pressed on the subject. Pray, what do you mean exactly by "useful" in this case? Do you mean that your son should aim at such acquirements only as fetch the highest price in the market, and induce merchants and tradesmen to make a higher bid for the services of a young man? You must be joking, surely, when you say that Algebra is more useful, in this sense, than Greek. Does it follow that the youth who can solve equations will keep a set of books better, will buy with more judgment, and sell with more persuasiveness, than the youth who can construe Homer? Of course, the objection is an absurd one, and is noticed only because it is so often urged. If that is the meaning of "useful," and the "useful" alone is to be learned, then the whole idea of a liberal education is a mistake. Reading, writing, and simple commercial arithmetic are useful in this sense, and nothing beyond these till we come to professional knowledge. Latin, of course, is useful to the lawyer, because many of his law-books are in Latin; and to the physician, because he is expected to write his prescriptions in that language. The theologian should know Greek, because, to use the strong expression of Luther, theology is nothing else than the right application of the principles of Greek Grammar. But there is no use in

the lawyer understanding Greek, or the theologian Latin, or either of them astronomy and the physical sciences. Did it ever strike this objector how thoroughly he is a living contradiction to his own theory? What is the "use" of the ornaments in his drawing-room, the pictures in his gallery, the gilding on his cornices, the polish on his boots, the two buttons on the back of his coat? Does he think there is less practical utility in knowing how to construe the Odes of Horace than in being able to prove that two sides of a triangle are greater than the third? This latter fact is, indeed, a most *useful* piece of information; but everybody knew it long before he ever heard of Euclid. My little girl (aged $2\frac{1}{2}$) showed the fullest comprehension of the fact this morning when she made a straight line of it from the nursery door to the strawberry-bed. But, says our friend, you know there must be some room for the exercise of taste. There is a natural desire to look upon beautiful objects, and to be surrounded by things which charm the fancy and delight the senses. As the Dutch proverb has it, "*Het oog moet ook wat hebben.*" Exactly so; and that is just your inconsistency. Your practice in this respect is far better than your theory. We only wish you to admit the same principle in the higher sphere of education. You recognize in your daily life and household surroundings the claims of taste and the æsthetic faculties in addition to the bare requirements of a narrow utility. We claim a similar recognition of the higher faculties in the work of education. You object, most properly, to bare walls and three-legged stools and Robinson Crusoe tables in your charming country seat. We, too, object to the absence

of all but the roughest furniture in the chambers of the intellect. We wish to *educate* the higher nature—to bring out its powers, to make its ear delicately keen to all the deep harmonies of Truth, and its eye quick to discern the spiritual beauties which other eyes have not seen and duller ears have never heard. And whatever helps to do this is an element in true education—*useful* in the large and noble sense of the word—a living stone in the walls of an Eternal Temple.

Looking to the actual state of the educational machinery, we find that in all the older and many of the modern institutions, Classics divide with Mathematics the place of importance. The days are happily past when, from nine years of age to nineteen, boys were kept to the monotonous mill-work of Classics, without any notion of the great world of thought and action beyond. A few advocates of this system are still to be found in sheltered situations —old gentlemen, for the most part, brought up and grown grey in the narrowest traditions of the scholastic life, who look with lofty scorn on all scientific attainments, detest modern languages, and think all coin to be base which does not issue from the classical mint and bear the impression of a heathen deity. But the race is almost extinct, nor is it likely that we shall ever see a specimen south of the Line. It has come to be recognized among fair and moderate men that the classical element is but one of several—if *primus* at all, only *primus inter pares*. The place of mathematics, also, is definitely recognized. The scientific accuracy of its processes, the demand it makes upon the powers of abstraction, memory, and combination, the certainty of its principles and results,

give to mathematical science a value, as a means of intellectual discipline, which is seldom or never questioned. These are the two poles of culture, towards one or other of which all other departments of education naturally gravitate. The question, however, is eagerly asked in some quarters, Can we not substitute for the classical languages some other subject which will secure the same results, and from the study of which our youth will come upon the stage of life equally prepared to act their part upon it as men? Can these studies show cause why they should be retained in their place instead of being dismissed to make room for others?

Now it might fairly be urged, in reply, that the cause should be shown by the other side—not by the tenant in possession, but by the applicant for a writ of ejectment. We have been in possession all these years: it is for you to point out the flaw in our title-deeds, and to make good your own claim to the property. But, letting this pass, it can without much difficulty be shown that classical studies do not usurp a place to which they have no right. As an instrument of mental discipline, they are in no respect inferior to any one of the proposed substitutes, and in many respects very much superior to them all.

We are now upon ground which has often been traversed. The books written in defence of classical education are innumerable. And the arguments are necessarily of the same kind in all. They may be broadly divided into two classes—those which are founded on the healthful intellectual discipline in learning the languages, and those which are derived from the value and influence of classical literature. As one climbs a mountain, partly

for the healthy exercise of the walk, and partly for the glorious view from the summit, so we would have boys learn Latin and Greek both for the sake of the process and the result of an acquaintance with them.

Those who would substitute the modern for the ancient languages admit, at any rate, that the scientific analysis of language is a necessary element in liberal education. The superiority, therefore, of the ancient to the modern languages, as an instrument of training, is all that requires to be shown in this case. Latin and Greek are preferable for this purpose, by reason of the more philosophical regularity of their grammar, the elaborateness of their structure, the ease and delicacy with which they express subtle distinctions of thought, the unalterable permanence of their form, and the wide dissimilarity between them and our own language. This last is a point of special importance, since "the attention is more readily fixed on the phenomena of language, when the words embodying them are unfamiliar to the eye and ear." But, without entering into a minute comparison of these languages, it may safely be asserted that there can be no thorough and scientific acquaintance with the languages of modern Europe without a knowledge of the classical tongues. The French, Spanish, and Italian languages are direct descendants of Latin, and can be scientifically studied only in their relation to it. Doubtless these languages may be spoken fluently and accurately without understanding Latin; but that is a widely different thing from scientific knowledge, which implies the power of tracing words back to their primitive roots, idioms and constructions to their remote sources in the original language from which

they have come. The words have a significance, a history, an association, a life to the classical scholar which they have to none besides. He alone has the key which unlocks their secret chambers. The Neo-Latin tongues, therefore (and German must be added to the list, since Latin forms a considerable element of its vocabulary), cannot rightly displace the classical languages, because, among other reasons, the latter are essential for the full understanding of the former. If the analysis of language is to be a part of education at all, the ancient must take precedence of the modern languages.

The same answer may be given to another claim which is urgently pressed in many quarters. We agree with you, many will say, in the claims which you make for language and literature as an instrument of mental culture. We think, with you, that the severity and rigour of mathematical studies should be relieved by the more generous influences of literature. It is not memory alone and the reasoning faculties that need culture,—the judgment, the taste, the imagination, the sense of beauty must be cared for. We admit their claims; but why go to the ancient fields when the modern are so fruitful? Why make the literature of Greece and Rome your starting point when we have a magnificent literature of our own? In a word, why not let English literature take the place of classics as the basis of a liberal education?

For this reason: You cannot understand English literature *thoroughly* without knowing something of Greek and Roman literature. Apart from the derived *forms* which our English literature has assumed—our epic, dramatic, lyric poetry, for example, being shaped more or

less on classical models—our language is so largely indebted to the classical tongues for its vocabulary, that it is simply impossible for any one to analyze thoroughly any portion of English literature without a knowledge of Greek and Latin. It is doubtless possible for a student to "get up," say, a Book of Paradise Lost or a play of Shakspere, with the help of vocabularies and lexicons, so as to be able to give the classical root for all the words of Greek and Latin derivation, and yet be unable to read a page in either of these languages. So have we seen, in the hands of little children, spelling-books in which the "etymologies" of English words are given; and the unhappy little creatures are compelled to bring up their daily inch-and-a-half of such gibberish as the following:

Eleemosynary: Greek *eleŏs*.
Abominable: Latin *ab*, *omen*.
Diabolically: Greek *dia*, *ballō*.

The knowledge (?) is about as contemptible in the one case as in the other. The memory is taxed to retain a number of unmeaning symbols, and the learner is deluded by the show, and corrupted by the pretence, of knowledge. To the classical student, on the other hand, the words are living things in vital connection with the past; and the tracing of their relations and affinities with the speech of Demosthenes and Cicero is at once an intellectual exercise and a true delight. "If the old classical literature were swept away," says a distinguished modern scholar, "the moderns would in many cases become unintelligible, and in all lose most of their characteristic charms." *

* Donaldson—*The New Cratylus*.

The other argument in defence of classical studies is founded on the value of the treasures to which they are the key. The end of all literary studies is to expand the mind by familiarity with the noblest products of the human intellect. The student of English literature is expected to give special attention to those periods of English history when the intellectual life was most vigorous, and to familiarize himself with the great masterpieces of English genius. And in proportion as our culture aspires to be thorough and our sympathy catholic will we aim at an acquaintance with all the great periods of intense literary activity and all the highest efforts of the human mind. It is needless to dwell upon the fact that the literature to which the classical languages introduce us is the monument of perhaps the most brilliant periods of intellectual activity which the world has witnessed. The Athens of Pericles and the Rome of Augustus represent the culminating points, respectively, of Greek and Roman thought. In those years were produced the most splendid and enduring monuments of the intellect of the ancient world. If the proper study of mankind is man—and in man there is nothing great but Mind—that surely is an imperfect culture which is ignorant of the noblest efforts of antiquity in the realms of Philosophy, Eloquence, and Poetry. These are the heritage of the Present from the Past. To neglect them would be simply to confess our unworthiness of the treasures bequeathed to us. In the words of another modern scholar,—"We are hardly less closely connected with the races of Greece and Rome than with our own immediate ancestors. Not more truly do we owe our

most valued civil rights and social institutions to our Saxon forefathers than we are indebted to the Greeks and the Romans for a large element of our literature and philosophy. It is not for us—

'The heirs of all the ages, in the foremost files of time,'

to disown the bonds that unite us with the nations of antiquity. We cannot efface these bonds; we may ignore them, but it will be at our own cost. It is a rich inheritance that we have received, and if we would hand it down not impoverished, but strengthened, it must be by duly appreciating the relations that we bear to it. They who have no past can have no future. It is as wise for races as for individuals to wish their 'days to be bound each to each in natural piety;' and an indispensable condition to our contributing anything to other generations, either in science, literature, or politics, is that we forbear to look on what we have as the fruit of our own toil, but reverently and gratefully own our debts to other and earlier nations. For themselves, also, are the ancient authors most deserving of intimate acquaintance. Within a bulk of comparatively small extent we have the works of poets, historians, and orators, who have been, by common consent, treated as models of successful composition. In the same works we see completely unfolded to us the history of some of the most momentous events the world has seen,—events full of instruction for the statesman, of interest for the student, and of warning and wisdom for us all."*

There can be no doubt that much of the prejudice against

* Introductory Lecture on the opening of Owen's College, by Professor Greenwood.

the study of the classical languages has been caused by false methods of teaching them. Nothing can be more unnatural than the traditional process of learning Latin. A Latin Grammar, constructed apparently with the intention of disgusting boys at the outset, is put into the child's hands. After climbing the Declension Mountains, and beginning to breathe somewhat more freely at the top, he is suddenly plunged in a mud-ocean of confusion and darkness, under the pretence of being taught rules for the genders of nouns. Here are a few bars of the sweet music to which his young life is set:

> Crus, jus, pus, rus, thus, fel, mel, vas-vasis et alec
> Appendix, crux, fax, nex, nix, nux, pixque, filix, strix.
> Scobs, carex, forfex, res, spes, sandyxque, tegesque.

And so on for weeks and months, grinding away at the Grammar-mill, loathing it in his very soul, yet supported by the simple and beautiful faith of childhood that somehow that must be right which his father bids, and his mother begs, and his teacher makes him learn. At length, after many dreary months of the Grammar, the Delectus is put into his hands, and he is expected to apply to Latin sentences the rules he has been learning. Gradually he becomes dimly conscious that, after all, Latin is a *Language;* that ideas may be expressed, questions asked and answered in Latin as in English;—that is to say, the ordinary process of advancement in every other branch of learning is reversed in the study of the ancient languages. "The study of language is, at the present day, the only kind of study which deliberately professes to advance in a direction exactly the reverse of every other branch of human progress. In every other fruitful

inquiry we ascend from phenomena to principles. In classical study alone we profess to learn principles first, and then advance to facts."*

The work of reformation in this matter is advancing rapidly in England. Men of high scholarship and intimate acquaintance with the actual work of education are insisting on scattering to the winds the vain traditions of the past, and following a natural method in classical study. The admirable volumes of Professor D'Arcy Thompson have done much to expose the fallacies and absurdities of the old system. And the accomplished writers of "Essays on a Liberal Education" have done good service in claiming for education a wider and more catholic basis, with more intelligible and practical methods. One of the essayists demands the total abandonment of Greek and Latin verse-writing as a necessary or general element in liberal education. Another bids the teacher plunge the boys at once into the Delectus, and let them get the Grammar afterwards, when they have acquired a fair store of examples from the Delectus. Others, again, urge the claims of English Language and Literature, the Natural Sciences, and the Modern Languages, as essential parts of a liberal education. The volume is a significant indication of the tendency of modern views on the subject. If the classical training is to be continued at all, it must take its place side by side with other studies. It must adopt methods which are in harmony with, and not in defiance of, the laws of the human mind and the results of experience; and it must justify its claims in

* Essays on a Liberal Education, p. 184.

the eyes of the world, by showing that it can produce not merely pedants who are shocked at a false quantity and learned in particles, but MEN who can bring to the business of life a wisdom that has been learned, and a mind that has been expanded by familiar converse with

> The dead but sceptered sovereigns, who still rule
> Our spirits from their urns.

The educational machinery in England is of necessity elaborate and complicated, and new ideas do not permeate the whole system at once. The pressure of public opinion is slow—and ought to be slow—in reaching the great centres of education and intellectual movement. But it is beginning to tell upon them. The Universities are moving in the direction of the feeling of average Englishmen, whose views are adopted and advocated by a strong party in the Universities themselves. University distinctions are now offered for proficiency in English Literature, Modern Languages, the Ethical and Physical Sciences, as well as in pure Mathematics and the Classical Languages. The governing bodies have exercised a wise discretion in the matter, in their disposition to co-ordinate these subjects of study, instead of subordinating one to another; and thus they are practically combining the views of such men as Dr. Whewell, who maintains that "Greek and Latin are peculiar and indispensable elements of a liberal education," with those of Dr. Temple, who describes such studies as Physics, practical Mathematics, English History, and Political Economy, as "a whole workshop of tools for the business of life."

In our own Colony the machinery is simpler. We have no founders' wills to fetter us, no inveterate preju-

dices to contend against. The higher education of the Colony is practically under the direction of the Board of Public Examiners, whose higher certificates correspond to the degrees of the English Universities, and the scheme of whose examinations is framed on the model of that University which is considered to embody, in the highest degree, the liberal spirit of the age. Our colonial examinations seem to meet fairly the requirements of the opponents of the exclusively classical training, while at the same time they most properly insist upon Greek and Latin as indispensable elements in a scheme of liberal education. The experience of ten years, during which the Board has been in existence, proves that its principles have been accepted by the colleges and higher schools of the country; and the lists of the names of the students who have gained its certificates show that its requirements are not beyond the capacities of our youth or the power of our institutions.

It may be urged, however,—indeed, it has often been urged—that the whole scheme of such an education is far beyond the needs of the Colony. Our youth, it is said, should have a practical training, to fit them for the peculiar requirements of colonial life. We want them to become good clerks, salesmen, tradesmen, and farmers. Is there no danger of over-education, of giving our young men tastes and habits which may unfit them for the life that is before them? Let me answer this question in better words than my own: "If that be 'useful' which trains a man's reason, cultivates his taste, enlarges his capacities for acquiring and digesting varied knowledge,—which helps him to distinguish truth from falsehood, right from

wrong, beauty from foulness,—which makes him, in the best sense, a wiser and, consequently, a better man,—if that be 'useful,' then I maintain that a liberal education, which proposes to itself these high aims, is as useful to a youth destined to stand behind a shop-counter, or sit on an office stool, as it is to the heir of broad lands and a feudal coronet. No doubt, in this class also, as in the lowest, a stern necessity frequently compels the limitation of a boy's school-days, and forcibly restricts his education; but in the majority of cases the limit is chosen deliberately. Whereas, a father who really consults for his son's best interests will endeavour to obtain for him as large a measure of liberal education as circumstances permit, and even submit to hardships and sacrifices for that object, for he knows that he is thereby enriching him with a treasure that cannot be gotten for gold, and whose price is above rubies."* Indeed, the circumstances of our colonial life seem to me specially to require that we should send forth as many young men as possible, year by year, with the most liberal culture that we can give them. The temptations to indolence, to flippancy, to indulgence in every form, are very great. The intellectual and moral tone among us is not high. The greater, therefore, is the need of sending out men who will be, not weak enough to sink to it, but strong enough to raise it. If the educators of our youth act on the conviction that the culture of the moral and the mental powers must never be dissociated, they will not fail to have their reward in seeing that their training has fitted their pupils for the

* Cambridge Essays, 1855, p. 291.

discharge of all the duties of life. And as it was said of a great man of old, "*primus Philosophiam devocavit e cœlo, et in urbibus collocavit, et in domos etiam introduxit, et coegit de vitâ et moribus rebusque bonis et malis quærere*," so let it be the ambition of all who enjoy the advantage of a liberal education to bring the utmost culture of the intellect to bear upon the duties of daily life, and to prove that the busiest activity is not inconsistent with the serene attractions of the intellectual life.

WITHIN AND WITHOUT.

I.

Fair is this world of ours, and ever bright
With flashes of the everlasting light.
The hills are touch'd with glory when the Morn,
Her misty robe all barred with gold and torn
With ravelled edge of splendour, lifts her head
Above the levels of her ocean bed.
The happy meadows and the whispering trees
Are bathed in glory when the morning breeze
Dies into noontide silence, and the glow
Of the strong sun smiles on the world below.
The glory, paler in the evening light—
That dim-lit vestibule of holy Night—
Shows soft and sweet across the tranquil stream,
In whose clear depths the arching heavens do seem
To underlie the earth, and hold the face
Of Nature in one calm, kind, close embrace.
And when the garish sun is set, then Night—
Beloved, welcome, noiseless, holy Night—
Comes sliding down through hush'd and lonely spaces,
And lays her healing touch upon tired faces.—
Then, then the world is fair! the silver moon
Is walking in her beauty through a noon
Of softer splendours, and the lonely star
Is streaming mystic influence from afar.

II.

Fair is the world without us: but within
The eye is blinded by our strife and sin.
We cannot see the beauty,
Because we fail in duty.
These mystic gleams
Are but as dreams;
And Nature's light,
Serene and bright,
Sinks slowly in obscurity,
And loses half its purity.

III.

I fain would see, with eye made clear
By love and truth, by faith and fear,
The shining of the light that holds
The world in beauty, and enfolds
Creation in the large embrace
Of Him whose ever-smiling face
Speaks to all worlds below, above,
Of changeless, pure, eternal Love.

C.

WAR AND PEACE.

REMINISCENCES OF TRAVEL ON THE FRONTIER.

KAFIRLAND, to some readers, is still suggestive of inglorious guerrilla warfare—of acts of violence and ruthless destruction of property—of mountain fastnesses and inaccessible bush or thickets, where crouched savage foes whose assegais suddenly struck down many a brave British soldier and treacherously pierced the bodies of unoffending and unsuspecting settlers. Fifteen years of peace have, however, done much amongst us to bury the recollection of these horrors of the Past. Here and there, it may be, a solitary blackened crumbling ruin will recall a tale of blood and strife and disaster; but over the face of the country generally, the undying fructivity of Nature has obliterated the vestiges of war. The comfortable homesteads of colonist-farmers, with their numerous flocks quietly feeding in valley and on plain, show that the blessings of peace and prosperity are resting upon them. The Kafir has buried his assegai—let us hope for ever!—and the green maize-fields surrounding his cottage or hut tell that the spade or the plough are now the weapons in his new career. The dense bush which secreted the lurking foe is penetrated by roads, along which the transport rider

securely drives his heavily-laden wagons; and the mountain passes, where many a brave life was fatally snared, may be travelled over with equal ease and safety. The associations arising from the former conflicts between the European and the native races yet serve, however, to make Kafirland one of the most interesting portions of the Colony to visit; and, in addition, the combination of all that is wild, grand, and beautiful in scenery which is there to be met with, is such as to afford enduring gratification to any one directing his steps thither.

An excursion made some time ago into a portion of this frontier territory afforded us an opportunity of carrying away impressions of many scenes which still make "fair pictures when our eyes are close;" and the companionship of some friends, whose acquaintance with the country dates from its first settlement by Europeans, enabled us to gather a general knowledge of many interesting occurrences which, although detached and meagre as here repeated, may be considered worth narrating.

Shortly after leaving Graham's Town, on ascending the ridge of land known as Botha's Hill, we had our first view of what may be termed Kaffrarian scenery—a magnificent panorama of wooded hills and dales, backed by massive mountains, whose tops merged into the blue haze on the far distant horizon. A glance sufficed to elicit exclamations of surprise and admiration at the glorious landscape before us; and as our gaze rested upon the prospect, and our companions named, one after another, the most prominent features from the Fish River Randt on to Gaika's Kop and the towering peak of the Winter-

berg, we felt that if ever there was a country where Nature's varied charms could implant in man deep attachment, if not patriotic devotion, here it was.

> Breathes there the man with soul so dead
> Who never to himself hath said:
> "This is my own, my native land."

The Amakosa Kafirs have, more than any other of our African tribes, shown that they have been so animated. Although themselves originally invaders—having in bygone generations driven out the Hottentots before them—they have striven to resist the encroach of any other nation, and their irruptions into the Colony have more than once been avowedly for the purpose of "driving the white man into the sea." Before and around us lies the theatre where many stirring scenes of that savage strife were acted. On yonder green slope which we have passed, the so-called "prophet" Lynx mustered his infatuated followers in the silence of early morning, fifty-one years ago, to attack the little settlement in the hill-encircled basin below, where now the city of Graham's Town extends. Lynx (or Makanna, as he was better known among his own race) was no chief, but had announced himself a prophet inspired from Heaven, and by his talents and address exercised an extraordinary superstitious influence over the majority of the leaders and people of the tribe. It was by his counsels they were thus united in battle array against the head-quarters of the British troops then on the Frontier. He told them that he was sent by the Great Spirit to avenge their wrongs, that he had power to call up from the grave the spirits of their ancestors to assist them in battle against the English, whom

they should drive into the ocean ; "and then," said he, "we will sit down and eat honey!" The British troops in the little garrison, which consisted of only about three hundred and fifty Europeans and a small corps of disciplined Hottentots, were surprised when they saw thousands of Kafirs at early sunrise marching over the heights above Graham's Town, for the place had no regular defence, and the few field-pieces which they possessed were not quite in readiness. The Kafirs, led by Dushani (a son of the great Chief Slambi) and Lynx himself, marched on to the assault with their wild war-cries; but they were speedily and gallantly encountered by a handful of men, under Colonel Wilshire, who poured upon them, as they advanced in disorderly masses, a destructive fire of musketry, every shot of which was deadly, while their shower of assegais fell short or ineffective. A party of Hottentots fortunately happened to arrive in support of the little garrison, and at once came to their help against the enemy. At the same time the field-pieces, having been got ready, were brought to bear upon them, and opened a most destructive fire. The Kafirs, however, fought very courageously—the chiefs leading them on almost to the muzzle of the guns, and many of the foremost warriors hurling their spears at the artillerymen, and some of them breaking short their last assegai to render it a stabbing weapon, in order to rush upon the troops, according to Lynx's directions, and decide the fortunes of the day in close combat. But the fire of the artillery soon created a panic amongst them, and an irretrievable rout ensued. Accompanied by their leaders, they fled back to the ravines and forest of the Fish River Bush, leaving

over fourteen hundred of their braves on the field of battle. Lynx, with several of the chiefs, was declared "outlawed," and the country for miles around was scoured in search of them. At length, finding that "the troops covered the plain and swarmed in the thickets, shooting all before them," Lynx emerged from the wooded ravines of the Fish River, near Trumpeter's Drift, where a burgher commando, under Capt. Stockenstrom, was encamped, and walked unattended into the camp to "see whether delivering himself up to the conquerors would restore peace to the country." He was handed over to Colonel Wilshire, the chief in command, was afterwards removed as a political prisoner to Cape Town, and condemned to imprisonment on Robben Island; and some years subsequently he was drowned in an attempt to make his escape from that place to the mainland.

Passing on from here towards the Fish River, we become familiar with the so-called Kafirland "bush"—a dense thicket of the candelabrum-shaped euphorbia, the aloe, the flowering spekboom, and other thorny trees, growing in rank luxuriance—where thousands of natives might crouch under cover to surprise the objects of their attack, or elude the pursuit of the military patrols. Most harassing work it must have been for our small detachments of "regulars" or "levies" to clear such a country as this. Their every movement was observed and watched by their hidden foes, always ready to assail them; and at length it was only by continuous indiscriminate firing into every thicket that they made the place too hot for the enemy.

The arduous and frequently unprofitable character of this service, however, led to the establishment of a line of military posts as central points of operation. Fort Brown, which we shortly approach, was one of the first of these erected. It is situated on open ground near the site of the former kraal of a petty chief, named Hermanus. The Fish River, sometimes a sluggish stream, but now a roaring, muddy torrent, runs close by it. This river, from its source to the sea, was considered as the boundary of the Colony at the commencement of the present century, although some portions of the Kafir tribes intruded on the western side of it, which was then known as the Zuurveldt. These, however, were driven out by a military and commando force assembled in 1812; and precautions were taken to prevent incursions or depredations by them. All Kafirs found within the boundary-line were directed to be treated as enemies, and fired on, except those who were sent in by the chiefs. But the acquired territory remaining unoccupied was too great a temptation for the irrepressible native raiders, who loved the wild pastures they had been driven from, and gave ample employment to the patrols. In these circumstances the policy was conceived of recognizing the supremacy of the Chief Gaika over all the tribes inhabiting the border, and of maintaining pacific relations with them by means of his controlling power. With this object, Lord Charles Somerset, the Governor of the Colony, visited the Frontier in 1817, and held an interview with that chieftain, at which many of the other chiefs were present, when an arrangement was come to acknowledging Gaika as the supreme authority in Kafir-

land; while he engaged to restrain his tribes from committing depredations within the Colony. The newly-assumed dignity of Gaika, who only ruled the inland Kafirs, was soon jealously disputed by the coast tribes, acknowledging the Chief Slambi, and within twelve months an inter-tribal war ensued, in which the Colony was unfortunately involved, as the ally of Gaika, and to secure the peace of the Frontier. It was at that time the attack on Graham's Town was made by the prophet Lynx, as already narrated. The result, of course, was the complete discomfiture of the rebellious Kafirs, and a new disposition of the country was made with a view to the better defence of the border. It was stipulated with the chiefs that the Chumie and Keiskamma Rivers, some forty miles to the north-eastward, should be recognized as the new boundary, and that the country to be vacated, as far as the Fish River, should remain unoccupied, as "neutral ground." One of the reasons for this arrangement was the fact that the occupation by the Kafirs of the thickets along the Fish River had exposed the Frontier to invasion, which even the established posts had been unable to check.

The course of our journey onward is suggestive enough of this, as it reveals a succession of wild wooded defiles and rocky fastnesses, until we reach the Koonap Heights, from which point the country presents a more softened, picturesque character. The impenetrable bush is diversified by extensive grassy ridges or meadows, bright with verdure, and dappled over with the fragrant flowering mimosa, or clumps of other evergreens. And as we advance to the Kat River, below Fort Beaufort, the

beauty of the scenery becomes still more marked, answering to Pringle's picture—

> Spread out below, in sun and shade,
> The shaggy glen lies full displayed,
> Its sheltered nooks, its sylvan bowers,
> Its meadows flushed with purple flowers,
> And through it, like a dragon spread,
> I trace the river's tortuous bed.
> * * * * *
> There the spekboom spreads its bowers
> Of light-green leaves and lilac flowers,
> And the bright-blossomed bean-tree shakes
> Its coral tufts above the brakes,
> Brilliant as the glancing plumes
> Of sugar-birds among its blooms,
> With the deep green verdure blending
> In the stream of light descending.

Numerous Kafir villages were spread over this district before the war of 1818, when they were directed to be destroyed, and a certain time was allowed the people to remove their property to the territory beyond; but for years afterwards it was a Paradise towards which they looked back with heavy hearts and longing eyes. The great Gaika had one of his kraals in this very neighbourhood; and here the first efforts were made to communicate to the savage chief and his tribe the civilizing influences of Christianity. The earliest pioneer was the Rev. Dr. van der Kemp, an agent of the London Missionary Society, who entered the country in 1799. His stay with Gaika was not of long duration; there were persons around him who, regarding the doctor's influence with jealousy, incited the chief to distrust and suspicion of him, and after a period of about eighteen months he was

obliged to retire into the Colony. Fifteen years afterwards the next attempt was made by the Rev. Mr. Williams, who was also sent out by the London Missionary Society. He was more successful, for he established a station near to where Fort Beaufort now stands, and, together with his wife, worked there with holy zeal until his death in 1818. The self-sacrificing labours of this worthy apostle to the heathen were not altogether fruitless ;—in the language of the Amakoza, "his good deeds did not vanish like water spilt on the ground," for when the next succeeding teachers settled in Kafirland they found a number of natives, who had been taught by him, assemble around them, forming the nucleus of the first permanent mission church in Kaffraria.

Fort Beaufort is situated on a beautiful spot, an open plain encircled by an amphitheatre of hills clothed with verdure. As the centre of one of the best sheepwalks and cattle-pasture districts, it has now become a town of considerable importance. It is still a military station, and its barrack accommodation is very extensive. From its first occupation as an outpost in 1822, it has been one of the principal bases of operation in maintaining the security of the Frontier, although more than once in bygone days it was abandoned. An occurrence of this sort, which must have compromised our national character in the view of the Kafirs, was related by an eye-witness. It appears that somehow or other a vague report was spread through the camp (this was a year or two after it was formed) that on the following night it would be attacked by a strong body of natives. At the time, there was no reason to suspect any such movement. However,

impressed with the treacherous character of the Kafirs, the indefensible state of the place, and believing the report, the camp was abandoned under cover of night, and, with such available conveyance as they had for movables, a flight to Fort Wilshire took place. A visitor to the camp next day, found not a living creature there except cats and fowls wandering about, and the variety of household articles scattered along the road indicated a reckless haste in getting away. On the actual outbreak of war in 1835, however, even the more important outpost of Fort Wilshire was evacuated, and so sudden was the inroad of the Kafirs that within one week forty farmers were murdered, 450 houses were burnt, and 4,000 horses, 100,000 cattle, and 150,000 sheep were carried off.* The incident which led to the next war, in 1846, occurred at Fort Beaufort. A native had stolen an axe from a shop there, and was being sent to prison at Graham's Town, when he was rescued by the Kafirs at a place named Dans Hoogte—as formidable

* Some idea of the panic amongst the Frontier colonists at this time may be gathered from the following breathless account given in a dispatch from the officer commanding the troops in Graham's Town (Lieutenant-Colonel, afterwards Governor, Smith) in January, 1835: "Upon my arrival, I found the country inundated with Kafirs, who were committing and had committed the most horrid excesses, murders, spoliations, and incendiarisms; and Graham's Town presented a most melancholy picture. A great concourse of the neighbouring and numerous population, burnt out of their homes, or who had fled from the impending danger, living congregated together in the deepest distress and affliction—in many instances destitute of every article of clothing except what was on their persons,—subsisting by the commissariat,—in deep lamentations for the loss of husbands and brothers, who had been cruelly and treacherously murdered or slain in the defence of their property, while others were regarding their destitute situation as hopeless, from the loss of all the luxuries, I may say, of which they had been possessed,—numerous heads of cattle, sheep, and horses, almost within the streets—every man bearing arms, and his countenance evidently excited—the whole appearance of the town one of a city long besieged, and momentarily expecting an assault."

a pass as that of Aberfoyle—where the road is narrow and winding along a rocky mountain side with steep precipices below. The Kafirs refused to surrender the man, and finally our troops had to take the field. In the last war (1851), the town again was the object of a very determined and well-organized attack by a petty chief named Hermanus, who assumed the leadership of a band of discontented Hottentots, aided by Kafirs from the neighbourhood. Their intention was to take the town and possess themselves of ammunition and commissariat supplies, but they were gallantly met and defeated, even their leader being killed, by the local Burgher Force. During the same war, the picturesque mountains which we look at northwards from the town were for a long time the stronghold of the Kafirs and Hottentots, under their ablest general, the redoubtable Macomo. These are known as the Kromme range—embracing Waterkloof, Fuller's Hoek, and Blinkwater—and extend over about twenty square miles of country, intersected with forest ravines, affording shelter for an innumerable force, and protected by immense ridges of rock, every one of which affords a good position. The Kafirs, who always prefer to fight under cover rather than in an open field, regarded the place as impregnable, and made it their *point d'appui*. At every formidable defile they posted their men, holding a large body in reserve to be applied to any point where the struggle became hardest; and even when driven from one, they at once moved to another equally advantageous to them. This hide-and-seek game on the part of the enemy was most harassing to the troops employed against them; but it was imperative that the place should be

cleared. This at length was effectually done by establishing entrenched posts at two or three points along the mountains, and marching the troops against the enemy at every spot where they were to be seen. For seventeen days, often in sultry and rainy weather, they scoured the hills and ravines—lying on the ground when they left off at night, and resuming operations at daybreak the following morning, until at last Macomo, with the remnant of his force, was obliged to fly. It was no wonder that Sir Harry Smith, "the hero of Aliwal," upon receiving dispatches from the general commanding detailing the affair, should have recorded his opinion that "in the long experience of his military life" he had never known greater ability, gallantry, and enterprise displayed in desultory warfare on the part of the officers, soldiers, and irregular forces engaged in it. There were several noble lives sacrificed in the work, and amongst others the brave and good Fordyce, Colonel of the 74th Highlanders. His success in bush-fighting had been very conspicuous, and his death was owing to that bold bearing which with an open enemy would ensure victory, while in conflict with the savage Kafir it invited treacherous attack from ambush. He was directing the movements of his soldiers to a fastness occupied by the enemy, and had advanced himself to the edge of the bush in front, when he was shot through the body and fell to rise no more. His last and only words were, "take care of my regiment." He was beloved by his officers and men; and never was the death of a chief more lamented than was that of the gallant Fordyce, as his remains were conveyed by his regiment, preceded by their Highland pipers playing "the

Flowers of the Forest" as an appropriate coronach, from the heights of the Kromme, with which his name will be long associated.

We leave the fastnesses of the Waterkloof on our left as we proceed on from Fort Beaufort by the Blinkwater road to the upper part of the Kat River. Our way winds through the valley in which the river runs, encompassed on each side by verdant and woody hills, spreading out occasionally to a considerable breadth and narrowing again to a miniature glen. The only "dangers of the road" we hear of are those occasioned by the collision of the monstrously heavily-laden wool-wagons, each with its team of twenty oxen, which are wending to and from the seaport towns. We are now on the highway lately opened up, connecting the northern divisions of the Colony and the country beyond the Orange River with the eastern ports, Kowie and Algoa Bay. The scenery improves in rich pastoral beauty as we advance, and as we enter the district of Stockenstrom by the Mancazana, we are not surprised that a devotee of the picturesque once aptly termed this "the Southern Vale of Tempe." In one of these well-watered, wooded, and verdant kloofs, still known by his name, Macomo and his followers dwelt for some years, between 1822 and 1829. Although the eldest son of Gaika, yet, according to Kafir law, Macomo was subordinate to a younger brother, Sandilli, the son of the chief's "great" wife. His natural abilities and his bravery, however, gained him very considerable power among his tribe; and had he been influenced by anything like christian or civilized motives, as sometimes he led the teachers who came in

contact with him to believe, he might have been the regenerator of his race. Unfortunately, he was swayed by the impulses of his savage nature, which were often aggravated and intensified by his intemperance ; and many of the most barbarous cruelties, in which sometimes his own followers were the victims, were perpetrated with his sanction or by his connivance. Such atrocities, happily, are seldom heard of now ; but several years ago they were common enough. The Rev. Mr. Calderwood, once a missionary and a magistrate with Macomo, describes the *modus operandi* adopted when it was desired to get rid of some obnoxious person, or one whose property was coveted. The chief, or a relative of his, got sick, and a "witch doctor" was sent for, who easily ascertained who was to be "eaten up," and, after going through some pretended incantation, denounced the party who had caused the sickness. The unfortunate wretch fixed upon was seized without trial or a moment's warning, and if not instantly strangled, drowned, stabbed, or killed with sticks, was reserved for a more terrible fate. He was sometimes fastened to the ground naked, and actually starved to death. Sometimes he was laid out upon red-hot stones, and left to perish thus in indescribable agony. In other cases the victim was bound to a stake in his own hut, which was then closed up and set fire to, while his executioners, likely his near neighbours, and not infrequently his own relatives, were watching without like so many fiends, ready, if he escaped from the flames, as sometimes happened, to toss him back again into the midst of them. Macomo, Mr. Calderwood says, went to a dreadful length in this cruel and unjust sacrifice of life. It was

not, however, until 1858 that the Colonial Government called him to account for such acts. He was then summarily tried, under martial law, for conniving at the "eating-up" of a member of his tribe, and sentenced to be imprisoned on Robben Island for a term of twenty years—a punishment which has been graciously commuted by our present Governor, who has just now released the exiled chief, and permitted him to return to Kafirland to end his days among his native hills and vales in peace. The circumstances connected with his temporary occupation of the Upper Kat River Valley and his expulsion therefrom are among the alleged causes of the wars of 1835, 1846, and 1851. This tract (embracing an area of about twenty-five miles north and south by about twenty miles east and west) was included in the "neutral territory" which the Kafirs agreed to give up to the Colonial Government in 1819; and when the plan of settling the Frontier with the British emigrants of 1820 was arranged, it was intended that it should be occupied by a body of Scotch Highlanders, who were to form a sort of militia to guard the boundary at this point. The Highlanders, however, never arrived; and parties of Kafirs were permitted to re-occupy the country, so long as they lived peaceably. It was thus that Macomo and his brother Tyali were allowed to return and erect their kraals here, where, with good behaviour, they might have remained. But from time to time there were repeated complaints of robberies by their Kafirs, who seemed to consider a successful cattle-raid a worthy achievement, and regarded it a wrongful act only when the depreda-

tions could be traced to them. At last an attack made by Macomo and his clan on a village of peaceful natives beyond the Katberg mountains was a crowning aggression which determined the Government to expel him from the place. He yielded without resistance, his kraals being destroyed, and himself and his people moved on to the Chumie; but there is no doubt that this measure exasperated him against the Government, and that from that time forward he was ready on every opportunity to join, if not the very first to form, the subsequent combinations of the tribes to invade the Colony, with the desperate hope of recovering the much-coveted land he had lost.

The Commissioner-General of the Frontier Districts, Sir Andries Stockenstrom, who had carried out the expulsion of Macomo, then conceived the plan of occupying the Kat River with the descendants of the aboriginal inhabitants, the Hottentots, who were scattered about the country. At first it was in contemplation to mix up a certain number of English and Dutch with the coloured class in the settlement, but this, unfortunately, was abandoned, on the ground that an English or Dutch settler would not consent to take a grant with which a Hottentot would be satisfied, or if they did, they would by superior energy and industry absorb the grants of those around them, and thus defeat the main object which the friends of the aborigines had in view, as well as leave the district as exposed to inroads as any other part of the Frontier. The land was divided into locations, on which one or more villages were planted, according as eligible situations were found for irrigation, each family receiving a certain

number of acres as their allotment, and the pasturage being reserved for commonage. The conditions imposed upon the grantees were to build a house, enclose the ground, and bring it into a proper state of cultivation within a period of five years, at the expiration of which the property was to be granted in freehold, but failing the fulfilment of the conditions, to revert to Government. For some time after their settlement, the Hottentots had many drawbacks to contend with; most of them were destitute of property of any description, and, with the exception of some seed distributed by the Commissioner-General on their arrival, no aid was given them in the shape of rations or implements of husbandry. Those who brought the means of subsistence with them until their first crop was reaped experienced no great inconvenience, but those who did not had to live on bulbs, roots, and wild berries indigenous to the country until their crops yielded them more substantial food. Within a year or two, however, they surmounted their first difficulties, their industry being rewarded by an abundant harvest, and their numbers considerably increased by accessions of their countrymen from other parts of the Colony until the population reached 5,000 souls. The Governor, Sir Lowry Cole, and Judge Menzies, who visited the district in 1830, expressed themselves astonished at the progress which had been made, and the friends of the coloured race in the Colony and in England were gratified at the apparent success of the liberal and philanthropic measure adopted by the Government in thus restoring a portion of the soil to the aboriginal inhabitants. For three or four years afterwards, however,

they suffered a good deal from Kafir incursions, and in 1835 had to bear the brunt of the war, being exposed to the most determined attacks of the followers of Macomo and Tyali. They had scarcely recovered from the disasters then inflicted, when the outbreak of 1846 occurred, and all their able-bodied men had again to leave their homes and join the military encampments. When allowed to return to their locations, they found, like many other Frontier inhabitants, the result of all their former labours destroyed; their houses had to be rebuilt, their lands to be cultivated, and their families to be fed. From this time a spirit of dissatisfaction crept in amongst them. They complained that while doing burgher duty they had not received the same treatment as others who were serving in defence of the Colony,—that they got no compensation for the losses they had sustained, and that they were in various ways made to feel they were a degraded race. The settlement of the Kafir Hermanus, with a number of disorderly followers in a neighbouring location, served further to corrupt and estrange the feelings of many, and especially of the youthful, reckless, and indolent amongst them, and a secret plot was formed with the Kafirs to rise in revolt at the first favourable opportunity, and sweep the European inhabitants away. The attack by Sandilli's tribe on the British troops in 1851 was the signal for rebellion, and Hermanus soon found himself the leader of a force of 900 Hottentots and other malcontents, whose numbers were increased by deserters from the Hottentot Regiment of Cape Mounted Rifles, and by the servants of the farmers, who were, in many cases, compelled to join their countrymen. There was still,

however, a small body of loyalists in the district, who, with the missionaries and the local magistrate, mustered together, and if provided with arms and ammunition they might have withstood the insurgents, or, at the outset, have even put down the insurrection. As it was, they were powerless until military aid came to their support. Fort Armstrong, which they had made their rallying-place, had to be abandoned, and was taken possession of by the enemy, who, however, were ultimately attacked and expelled by the troops and loyal burghers under General Somerset. Severe but necessary retribution followed this rebellion. All engaged in it had their property confiscated, and many of the suspected sympathizers forfeited their allotments, which have since been granted to settlers of European extraction,—a policy which it would have been prudent to have adopted on the first distribution of the land. It has taken the inhabitants many years of patient and persevering industry to repair the disasters of 1851, and even now the body of the population cannot be termed very prosperous. But the blessings of peace and guaranteed security which they enjoy, with the advantages of education, which are slowly but gradually being extended amongst them, afford the means and opportunity of their yet attaining every condition of a happy community.

Nature has been very liberal in her arrangements in this portion of the Kat River district. Surrounding the irregular basin of the central valley where the villages of Balfour and Hertzog and the dismantled tower of Fort Armstrong are situated, there are lofty and majestic mountains whose numerous kloofs are clothed with large-

timbered forest and green glades, and through which beautiful streams pour down to the subsidiary dells below. Over the mountain range above, known as the Katberg, the great northern road has been constructed within the last five years, and for grandeur and romantic beauty it is considered unsurpassed by anything in South Africa. It was the last and crowning work of Mr. Andrew Geddes Bain, the self-taught colonial road-maker and geologist. The mountain height here cannot be less than three or four thousand feet above the level of the sea, yet the road winds up by a gentle ascent on the ridge of a kloof, through bush and rocky krantzes, and over waterfalls and fearfully deep gullies, which make one marvel at the intrepidity and skill of those who laid it out. Nothing can be more grand and imposing than the panoramic view which is obtained as the traveller reaches the site of the old convict station on Brander's Kop, nearly midway from the hamlet of Balfour. The basalt-crowned Katberg, still high above, stretches away to the left until it joins the Didima range, overlooking the Waterkloof and its gorges ; to the right we have the bluff front of the Elandsberg, with the plains of the Bontebok Flats beyond, and the conical "Wizard Head" or Gaika's Kop (upwards of 6,000 feet) towering aloft over the ridges of the famed Amatolas,—or, as Americans would say, "looking down on all creation;"—while, before us, towards the east, spreads far and free an apparently boundless succession of hills and vales, whose still repose under the blue sky is unbroken by any signs of human life.

> 'Tis a glorious land ! where nature reigns
> Supreme in awful loveliness.

To obtain an adequate conception of the superb scenery of this locality the visitor should make a stay at the comfortable hotels which are to be found on the mountain side, or at the pretty little village of Balfour, and day after day renew acquaintance with the varied pictures which are presented for admiration. Beyond the main convict station, the views from the several turns of the road are strikingly grand and beautiful. For some considerable distance the way is cut out of an immense buttress of rock, and a sensation of almost overpowering giddiness is felt as the eye alternately gazes on the forest heights above and the forest depths below; then the sound of running water is heard, and a bridged ravine is passed, where a rushing stream breaks over the fern-clad rocks, and hurries away into the tangled bush beneath; and all along the zigzag course approaching the summit, numbers of little rills trickle clear and cool from the slopes, which are carpeted with innumerable wild flowers, waving grasses, and shrubs that would enrapture a botanist. From the top, again, a magnificent outlook over the valleys far below is to be had; and according to the season of the year, or the state of the weather, it changes from the picturesque to the wild and fantastical. We visited it on a bright, clear summer's day; but our companions had seen it under different circumstances—in winter, when snow enwraps the heights in its white wreaths, giving it a perfectly Alpine appearance; in dark storm, when loud thunders echo over the rocky peaks, and vivid lightnings illumine the yawning precipices around; and, at other times, when the spreading vales below are covered with a sea of silvery mist, out of which the tops of the hills rise up like solitary islands on an expanse of ocean.

The great northern road leads on from here into the Queen's Town division, which, after the last war, was wisely peopled by Sir George Cathcart with a burgher population of Dutch and English origin, on a principle of military organization for self-defence, and it is now one of the most prosperous farming districts on the Frontier. But, retracing our steps, we pass out of the valley of the Katberg by way of Elands Post (another of the forts erected years ago as a place of defence against the attacks of the Kafirs), in order to visit the neighbouring division of Victoria, once the head-quarters of the Kafir tribes. Our route lies through the charming pastoral valley of the Lushington River, where we notice several comfortable-looking dwellings, surrounded by cultivated grounds, and groups of sleek, fat cattle, possessed by natives and Europeans in friendly neighbourhood. We then ascend the shoulder of the ridge known as Peffer's Kop, overlooking the Chumie basin, where a scene of more picturesque beauty than any we have yet seen opens to our view. There are the Amatolas, with the Hog's Back and Seven Kloof mountains, stretching for miles on the left; the wood-fringed slopes of the Chumie Peak on the right, and the open grassy basin along which the river runs in the centre, formerly the boundary of Kafirland. It was to this place that the acknowledged Paramount Chief Gaika retired after the war of 1818; and it was here that the first permanent Christian Mission Station was formed, with the sanction, if not at the request, of the chief,—to instruct the children and people in religion and some useful arts, and at the same time to conduct the correspondence between him and the Government. The Rev.

John Brownlee was the first Missionary appointed to the service; he took up his residence, in May 1820, on the Umgwali, a stream running down one of the slopes of the Chumie Mountain, and then not far from Gaika's kraal. There he gathered around him many natives, some of whom had formerly been under the care of the Rev. Mr. Williams; and a year afterwards the station was joined by the Rev. W. R. Thomson and Mr. Bennie,—all having been sent out with the approval of the Governor, Lord Charles Somerset, who, however unfavourably he may be regarded in reference to certain matters of his administration, manifested to these devoted men a deep interest in the civilization and religious instruction of the Kafirs. Many stories have been told us by one of the surviving Missionaries illustrative of the border life of fifty years ago, as well as of later days, which space forbids our relating here; but one or two may be given, as connecting links between the past and the present.

When the lines of the "neutral ground" were agreed upon by Lord Charles Somerset and Gaika, it was desired that the intercourse between the natives and the colonists would be rendered more difficult, and that thus obstacles would be placed in the way of cattle-thieving, the common cause of complaints. Practically, however, these measures were of little avail, and, in fact, tended to encourage what was meant to be prevented. After the arrival of the Settlers (in 1820), a number of them, with the characteristic enterprise of Englishmen, made hunting expeditions into the "neutral ground," which was crowded with game of all kinds, including numerous elephants. The border Kafirs sometimes did the same

stealthily when they could with safety, which was not difficult, as there were only at that time the military stations of Fort Wilshire and Fort Brown in the whole territory. Very soon a trading intercourse began to be privately carried on in cattle and ivory between the Kafirs and colonists towards the coast line. Arising out of this contraband trading, disputes sometimes took place between the parties, but none of them were of so serious a character as to call for the interference of Government. There was some security against either side making complaint, from the fear of exposing themselves to discovery and punishment. The fact that such intercourse existed, at length, however, became known to the colonial authorities, and this led to the establishment of a fair at Fort Wilshire, where, at stated periods, legitimate barter could be carried on, without risk of violent collision between the parties taking place, both being under the eye of the commanding officer, to whom disputes could be referred. On the first occasion of the fair, said our informant, a large number of Kafirs, and a goodly number of colonists were assembled. The Kafirs were grouped in circles round their merchandise, or came moving in in cavalcade on oxback, for a horse was a rare thing to be seen among them in those days. There, again, were the yet untried English traders, with a tempting display of beads, buttons, blankets, pots, brass and tinware—the value of which had begun to be appreciated by the Kafirs. In seven months the quantity of ivory alone purchased by the colonists amounted to 50,441 pounds, and it was estimated that 16,800 pounds of gum and 15,000 hides were purchased in the first five months. This was the beginning

of a commerce which has since increased to an extent far beyond what could have been then anticipated. It was somewhat amusing to remember the quantity and the kind of the stock-in-trade of the new-comers, some of whom were on foot, others on horseback, and one particularly noticeable in a rude sledge drawn by two oxen, with which he had travelled all the way from Graham's Town. What backwoodsman could have done more?

Peace was happily maintained during Gaika's time, and until after his death in 1828; but the relations between the Government and the chief were frequently not of a very amicable kind. Constant complaints were made on the one side of thefts of stock from the Colony, and on the other, of reprisals by patrols and commandoes against the Kafirs—alleged to be made, now and then, without much discrimination. The mission establishment, in these circumstances, was what in modern phrase might be called "a buffer," and sometimes prevented violent collisions which might otherwise have taken place. But the position of the Missionary, as the correspondent or "agent of Government," as he was termed, was by no means pleasant, and in some respects was hurtful to his influence and usefulness as a Christian teacher. It might, however, have been expected that Gaika, having had many tokens of special favour from the Colonial Government—petted and pampered with valuable presents, and protected and supported as Paramount Chief of Kafirland within the Kei—would have been friendly-disposed and faithful to his allies; but against all influences, religious or political, except such as favoured the indulgence of his savage nature, he carefully closed his mind.

His covetousness and cunning were often shown to the Missionaries, to whom he paid almost daily visits, usually accompanied with a long train of attendants. As soon as he came into the house, his eyes would wander round to see any portable article that he could ask for, so that it was necessary to keep out of sight what might be likely to tempt him. No amount of presents seemed to satisfy him or to shut his mouth; it was continually "give, give." Under such circumstances, it was not expected that much attention would be given by himself or his followers to religious instruction. Any inclination in that direction manifested by his people was more likely to mark the individual as a victim for "eating up" when a plausible occasion offered. It was evidently mere pretence when he said that he wanted Christian teachers to instruct his children and people in religion and civilization. Avarice and a desire for political importance were his ruling motives. This part of his character it was easy to perceive; but he was made conscious of it in a way very humbling to his self-importance on one occasion which took place in those early times. He had visited the station as usual, and had already received some presents when his eye alighted upon a looking-glass and a hatchet. These he asked to have. "No, they cannot be spared." More strongly they were demanded. "No, he cannot have them." Thus the altercation went on for some time. Matters had now come to a crisis, and it was necessary to be firm. He left the house in a towering passion, and commenced to harangue his people with violent gesticulation, and continued doing so for nearly half an hour. "Why have Missionaries come into his country

if they are not willing to give him anything he asks for; they must leave; the people must disperse; the station must be broken up; on the morrow the people must leave, and on the following day the Missionaries!" During this harangue the Missionaries consulted together as to their course of action. They saw that the intention of the chief was to frighten them into compliance with his demands, and that he was by no means in earnest in saying that they should leave his country. He had, however, over-acted his part. When he had done, he was told by the Missionaries that they had now heard his orders and should at once begin to make preparations for obeying them; that their Lord had given directions to His servants how to act in circumstances like the present; that they should now go to some other tribe and people where the Gospel message would find a better welcome; and that they should tell to the world how the great Chief Gaika had banished the Missionaries from his country. The effect was instantaneous. The great man could not just at once humble himself, but step by step he came down until in the most abject manner he begged that they would not leave him; and after this they were relieved in some measure at least from his hard, importunate begging. With all the advantages which he enjoyed from the time that Dr. Van der Kemp went into Kafirland, and afterwards by the labours of Williams, Brownlee, and others, Gaika did not acquire the art of reading, nor did he encourage it amongst his people; and although he could not help knowing some of the truths of religion which the Missionaries taught, he did not accept them for himself,

and he showed the greatest hostility to those who were known to do so. He only knew the teachings of Christianity thus far—that it condemned the licentious practices, the cruel oppression, the barbarous superstition, and the raids and robberies he countenanced and encouraged. It might be, also, that his opposition to the efforts of the Missionaries, as then carried on, arose from a feeling of jealousy that they would undermine his power as a chief by withdrawing his people from him and exercising an authority independent of his. There was, perhaps, some show of reason in this, too, from the manner in which Missionary operations were uniformly carried on at that time in what was Independent Kafirland. That was by congregating as many as might be influenced to a separate locality, where the Missionary fixed his residence, and a station was formed, and, of course, regulations were framed for the government of the community. The chief would regard this as a power arising between him and his people, which he could not tolerate. It would be better, perhaps, in such circumstances, though requiring more self-sacrifice, that the Missionary should throw himself among the mass of the people, and let the leaven of the principles of Christianity act upon the human heart in contact with it in its everyday working and experience.

Oftentimes, the Umgwali was a place of sanctuary for Kafirs who were the objects of the avarice or cruel passions of their fellow-countrymen; and we heard of several melancholy instances of persons escaping to it from torture, with arms and feet almost roasted. On some occasions, the fugitives were left unmolested, at the earnest entreaties of the Missionaries; but at other times,

such interference was disregarded, and the wretched victim was pursued to the death, except when he could be concealed in an inner room of the mission-house, for the pursuers did not attempt to drag him from there. In 1829, a party from the "great place" of the chief unexpectedly entered the village, rushed upon an individual who was rather wealthy, carried him out and placed his neck in the fork of a thorn-tree at hand, and then battered his head with their kerries (knob-sticks) until his brains were scattered on the ground. The whole thing was done before the resident Missionary (the late Mr. Chalmers) could be informed of what was going on, so as to interfere to save the life of the man. The murderers, when challenged for their deed, coolly said "the children of the chief were hungry and needed food, and therefore he had sent them to fetch it." The man was thus "eaten up," and, as a matter of course, the whole of his cattle were carried off and his family left destitute. In consequence of the covetous disposition of chiefs and people at that period, it was most dangerous for the safety of an individual to be considered rich. To avoid the appearance of it, those possessing many cattle would distribute them amongst their friends to be taken care of. Occasionally, however, they would be just too well taken care of, by the care-taker helping himself to them. In such a case it would be unsafe for one to complain, as it would likely lead to his being mulcted in a fine for endeavouring to conceal his property. It might be thought that in course of time such oppression would become intolerable to the people. It does not, however, appear to have been felt so; but was regarded as an

established custom of the country—a prerogative of the chief. The agents in carrying out these orders were sure to receive a portion of the plunder, and were not merely remorseless but willing in their work; although it frequently happened that the instrument of to-day became the victim of to-morrow, and got the same measure meted out to himself that he had just previously measured to another.

During the wars of 1835 and 1846, the mission people at the Umgwali were often in perilous and critical positions, and more than once they had to seek safety in flight; but it was at the outbreak of the last war in 1850 that the most sanguinary atrocities were committed by the Kafirs, not upon the mission station, but upon the neighbouring settlers. Two or three villages had been formed in the Chumie basin, near the banks of the river, where the Government settled a number of good-service and other discharged military men to serve as a barrier against the tribes close by. These villages were known as Auckland, Johannesberg, Ely, and Woburn. The inhabitants were industrious and well-behaved, and were on friendly terms with the natives, although the latter sometimes complained of their keenness to impound any cattle setting foot across the river. On Christmas Day the several families were preparing to engage in the social enjoyments common to their countrymen at home and abroad, when information reached them of an unprovoked attack by Sandilli's Kafirs on a body of troops in the "Boma Pass" of the neighbouring Amatolas. There had been some apprehension of offensive movements on the part of the natives prior to this, which the authorities disregarded

from the apparently peaceful declarations of several of the chiefs; but, now that hostilities had taken place, no time was lost in warning all on the border. Messengers from Fort Hare accordingly brought the intelligence to the military villages. At Auckland, almost as soon as the messengers had left, a number of Kafirs of Tyali's tribe, under a headman, named Xyampi, came into the village to hear the news. The settlers, without any suspicion, entered freely into conversation with these visitors, who were all the while talking of peace, and professing their desire to "sit still" on terms of friendship with them, whatever quarrel their chiefs and the Government might have. While talking thus, however, the Kafirs had gradually increased in number, and now formed such a group as quite to surround the handful of unarmed and defenceless villagers. Suddenly a shrill shout—the war-whoop—was heard, and at once the Kafirs raised their assegais, and commenced their work of destruction. Nine men were struck down almost in a moment. The others saw that no time was to be lost in providing for their own and their families' defence, and made for a house which was standing without a roof, where the women and children were also hurriedly packed, and where, as long as they had ammunition, they were able to defend themselves. The Kafirs set to pillaging the houses and gardens of the village, after which the whole was given to the flames. It was difficult to burn the house in which the settlers were, there being no thatch upon it, and those there maintained their position till the following morning, when, their ammunition being spent, the Kafirs were not slow to perceive that they

could make an easy prey of their victims. They kept throwing stones and other missiles in upon them, which cut and bruised many of the women and children. When they found that they could advance so near as to do this with impunity, they set about kindling such wood as was about the frame of the house, and told the men that they would leave an open way for the women and children to escape. The latter accordingly came out, whatever clothing they had worth taking being torn off them. What the end of the unhappy men was their cruel murderers alone can say.

The women and children made for the mission station on the Umgwali, a mile or two distant. Their sad plight as they approached the place needed not words to tell their story. Many of them had to bewail double bereavements; sons or brothers, as well as husbands, had fallen. One of them had seen her father struck down at the first onslaught of the Kafirs; her brother then took her by the hand, and ran to get her into the house, but at the threshold he was stabbed by an assegai, and fell at his sister's feet. It was believed by most of the survivors that all the men had been killed at the time the women and children got away; but one poor woman, who was the last in coming in, stated that ten men were yet alive when she left, shut up within the walls of that roofless house. She would have remained and shared her husband's fate with him; but for the sake of their two children, who were by her side, he entreated her to leave and try to get to a place of safety with the others. After coming out with them, she turned back to take a last embrace of her husband; and she exclaimed in keen anguish, wring-

ing her hands, "Oh, that look!—that long, long look with which he followed me when I came away!"*

At Woburn, the site of which we pass near the mission station of Macfarlane on our way to Alice, the same treacherous tragedy was enacted, and the clouds of smoke rolling up in the bright sunshine told that the village and its people were destroyed. At Johannesberg several lives were also lost; but the few villagers of Ely escaped. It was an anxious period for the fugitives and missionaries at Umgwali; but a messenger from Macomo came to tell them that they might sit still, as they would not be disturbed; for the chief's word was given, "that the man who would spill a teacher's blood, his guilt would be great over all the earth." And this word was sacredly regarded even in circumstances when the wildest passions of these barbarians were most excited.

We halt in our journey at the pretty little town of Alice, resting in the valley where a small river, the Gaga, joins the Chumie. The old outpost of Fort Hare stands on one side of the town, its walls crumbling to decay, and its doors and gateways covered with rank grass, telling that the days of war are gone by. Half a mile away on the other side there rises a substantial pile of buildings, surrounded by trees and well-ordered hedges, with cultivated fields extending along the river's bank. That is the Native Industrial Seminary of Lovedale, where a band of devoted men and women in connection with the Free Church of Scotland are quietly but most effectively labouring to civilize and christianize the natives of Kafir-

* *Vide* Brown's "Personal Adventures in South Africa."

land,—inculcating amongst them lessons of charity and peace, training them to habits of industry, and teaching them to fear God and honour the Queen. There is yet much to be done both by the Government and by the Christian Church to secure the civilization of the thousands of untutored tribes on the borders of the Colony. But to stimulate a savage nation like those with whom we are so closely associated to adopt the peaceful habits and social improvements of a Christian community is a high and noble object well worthy our striving to accomplish. Their condition now even is in marked contrast to their degraded state when we first came in contact with them half a century ago. The progress they have thus far made makes us hopeful of still further advancement hereafter; and, without anticipating anything like a millennial period of peace and goodwill, we may confidently look forward to a future time when the Amakosa shall join with other races of South Africa in the sentiments expressed by one of the Zulu Kafirs, whose thoughts have been very happily translated into English by the Bishop of Natal:

My brethren, let our weapons,
Our warlike weapons all,
Be beaten into ploughshares,
Wherewith to till the soil.
Our shields, our shields of battle,
For garments be they sewed;
And peace both north and southward,
Be shouted loud abroad.
Northward, I say, and southward,
And far on every side,
Through Him who ever liveth,
The Father of our Lord.

Our soldiers be they gathered—
E'en those who others harm,
E'en those who seek to injure
The men who live in peace—
Gathered to make the highways
That go from land to land,
Till every tribe shall utter:
"He is indeed our Lord;
He is the Lord our Master,
He is the Lord our God,
He is the Lord Almighty,
Who liveth evermore!"

Yes, dead is now all evil,
Goodness alone abides.
'Tis Jesus Christ has conquered,
Who's risen from the dead.
Through Him we, too, my brethren,
The world have overcome;
Now ever lives all Goodness,
Now ever lives all Love.
And northward now, and southward,
And far on every side,
Peace lives, and lives for ever,
The peace of Christ our Lord!

DE PROFUNDIS.

"And the Kings in Hell lifted up their voices and said 'Art thou become like one of us?'"—ISAIAH.

ART thou become like one of us, oh, King!
Couldst thou not live for ever,—as thy slaves,
With prostrate forehead, daily to thee cried?
There is not one of all that servile band
Who is not greater, mighty King, than thou!
Here is no Babylon for thee to rule;
Stretch out thy sceptred hand, and see if one
Will come and kneel to thee and call thee King.
Thou hast destroyed thy thousands. Canst thou add
One life unto their number?—but one life
Which thou didst count as worthless as the sand.
Thy power is gone, oh, King of Babylon!
Thou canst do naught but live,—that is thy curse,
Thine and our own, to live and ne'er forget.
For ever and for ever in our ears
Sound the commingled shrieks of all our slain,—
The helpless babe, the weeping maid forlorn,
The childless mother, and the tortured slave.
Dost thou not hear their voices as we hear?
The gods we served with many a sacrifice
Are less than naught,—a shadow in men's minds.
And He, the Mighty One, whom we forgot,
Or scorned to think upon, as thou, too, scorned,
Hath placed us here, and left us. Can He hear,
From out this blackness, what we cry to Him?

In all the future is there yet a time
When He will hear, and bid us cease to be?
"Take back the life Thou gavest,"—that is all
We dare to utter. Will He ever hear?
We saw Him not, to us He had no shape,
Though now, too late, we know when spoke His voice.
The tender ruth that filled our shuddering souls
As the first deed of horror stained our hands,—
Ruth which we trampled down with savage pride—
The silent protest which our spirit made
To the mad round of grim, licentious joy,
The rare calm moments of unselfish love,
The conscience that we seared,—all came from Him,
All were the echoes of His voice Divine.
The good, the right, was God, and that we knew,
But would not heed, and so we suffer here.
And thou shalt suffer. Do we pity thee?
We pity not, we scorn thee for thy fall,
We hate thee for the glories thou hast had.
But naught that comes from God remains to us;
Pity is good, and so should dwell with Him.
Oh! would He heap more judgments on our heads!
Then should we know we were not quite forgot,
Then should we hope that pity might prevail.
Dark, dreary, changeless is this place forlorn;
And here we shriek with unavailing rage,
Or moan with feeble wail of dull despair,
Forsaken, left alone, for evermore!

W. G.

Graham's Town.

IRRIGATION AND TREE-PLANTING.

My object in this essay is to call attention to some of the many ways in which the industry or intelligence on the one hand, and the negligence and ignorance on the other, of man, may modify for good or evil the climate and other circumstances of the regions he inhabits, and to endeavour to apply to the condition of this country the lessons so derived, in the faint hope that some practical good may result to the tillage and management of the Colony from the warning and encouragement furnished by the experience of men of other lands and other times. With this view, I will select the subject of irrigation and the increase and conservation of the water supply of the country for my remarks.

The colonist who has travelled in the North of Italy will have been struck by many features which the mountains and sub-Alpine plains of Verona, Lombardy, and Piedmont have in common with those in the midland districts of this Colony. Among these are the extensive alluvial plains, formed from the deposits of the rivers which traverse them. The alluvium formed in the sub-Alpine plains from the disintegration of the granites and metamorphic schists, slates, and limestones of the Alpine chain contains the mineral elements of a highly fertile soil, but one in no way superior to that formed from the

secondary clays, marls, and igneous rocks of our Dicynodon formation. The rivers in both cases issue from mountains of great elevation, and consequently with great velocity, with some remarkable exceptions, which I will notice presently. Yet with these and other points of resemblance there is a still more marked contrast between the productiveness of the Italian plains and the proverbial barrenness of those of the Karoo districts. In the former, the eye is sated with the interminable lines of pollarded mulberry trees, grown to feed silk-worms with their leaves,—the ever-recurring fields of corn, rape seed, &c.,—the meadows carefully irrigated by a peculiar system, and the rice-fields with water knee-deep in the early spring,—every acre of the vast plain yielding food for man and rich articles of commerce, while every available space on the adjacent hills supports olive trees, and vines planted on terraces. The Karoo plains of this country, on the other hand, present a picture of barrenness and desolation.

The Mesembryanthemums, Compositæ, and Justicia—the Karoo bushes—afford a scanty pasturage to flocks of sheep, which range over a great extent of country for their food. The inhabitants live in comfortless dwellings, generally many miles asunder; yet, as I have stated, the soil of the two countries is much alike, and the few spots where it has been carefully cultivated show that it is as capable of producing abundantly corn, wine, and oil, and other necessaries to the support and comfort of man as is the soil of Lombardy or Piedmont. Wheatlands, the estate of the Messrs. Parkes, is but a portion of the great Karoo plain, watered and tilled by the ingenuity and industry of man.

And this brings me to the great cause of the productiveness of the sub-Alpine plains, viz., the water, and notably the system of irrigation which has been in action, with progressive improvement, for centuries. So much has it occupied the attention of thoughtful men that Col. Baird Smith states that the catalogue of books relating to the conservation, distribution, and measurement of water in Italy reaches to ten volumes.

From all the rivers which traverse the plains, canals, many of them hundreds of miles in length, and some navigable, convey the fertilizing streams over the thirsty lands, and supply to them the source of their extraordinary fertility. By them the mulberry trees which feed the silkworms are watered; by their aid rape seed and colza are grown in vast abundance for oil, and hundreds of square miles of plain are converted into swamps for the growth of rice.

It is true that Italy is singularly favoured in many particulars as to its water supply. The author just mentioned draws special attention to two of these, viz., the perpetual snows of the Alps, and the series of lakes from which the rivers issue.

Of so much importance does Col. Smith consider the supply of water in summer from the melting of the snow, that he doubts the possibility of a complete system of irrigation in countries which have not, as Italy and India have, high chains of mountains from which issue rivers whose chief sources are derived from the periodical solution by the heat of the snow fallen in the winter. This source of supply we are denied; but our rains chiefly fall in spring and summer, and though we cannot

expect—perhaps ought not to desire—water enough for rice swamps, the judicious economy of the water we have might do much to supply the deficiency of the snowy ranges of more favoured lands.

But it is to the influence of the lakes of Upper Italy on the irrigation of the plains that I would call attention. On this subject I quote Col. Baird Smith's words: "After spending some time in examining various minor works, which require no special notice, I left Trezzo for Como, with the view of visiting those lakes whose usual interest is restricted to their beautiful scenery and delicious climate, but which possessed for one charged with such inquiries as mine an additional and special interest, as most important elements in that hydrographical system to which Lombardy owes its rich productiveness. Looking to the manner in which this system has been developed in nature, it is certain that if the highest human skill had been permitted to deal with the material of which it is composed, that very adjustment which we now find to exist would probably have been employed without a single material modification. The great rivers flowing from the region of perpetual snow through channels narrowed within rocky barriers and disposed in slopes of excessive rapidity would have been modulated and contracted by being made to enter into still water basins of great superficial extent and proportionate depth. Entering such basins as mountain torrents, almost uncontrollable in their force, charged with the various earthy matters they had carried away during their passage through rocks or soils which could not resist their excessive power, the rivers would be made to leave them

by channels of gentler and more manageable slopes, and further purified by having deposited those masses of silt they had brought from the interior of the mountains. Such are, in fact, the functions performed by the chain of lakes which lie at the base of the Alpine range, and into the various members of which the rivers supplying the irrigation canals of Lombardy discharge themselves before descending into the plain. It is scarcely possible to over-estimate the value of this natural arrangement,—it is one for which Lombardy has constant cause to be grateful to a skill above that of man ; and, looking to the natural features of the country, it is perhaps not too much to say that without it the rivers flowing directly from the mountains would as often have blighted the land by their destructive floods as blessed it by the discharge of their fertilizing waters."

Unfortunately, we have no Lago Maggiore, no Como, no Garda, to beautify and enrich our country ; but could we not, by availing ourselves of the structure of our hills and plains, imitate, on however humble scale, the lakes which collect and render useful and manageable the water of the Alpine torrents, and thus utilize our comparatively small and rapid rain-fall ? The plains whose capabilities of soil and whose present state I have had in mind in the comparison with those of Northern Italy are the Karoo plains of Graaff-Reinet, Cradock, and other of the Midland districts. The geological formation of those districts is that described by the late Mr. Bain as the lacustrine beds, and known to local geologists as the Dicynodon formation, so called from the abundance of bones of genera of reptiles discovered by Mr. Bain, and

described by Professor Owen under the name of Dicynodon Bainii, D. tigriceps, D. lacerticeps, &c.

This formation consists of strata of clays, marls, and sandstones, more or less hard and durable, nearly horizontal, and traversed in all directions by dykes of syenite, greenstone, basalt (diorites), and other varieties of traps, and it is to the relation of these dykes to the stratified rocks in its bearing on irrigation and water supply that I wish to draw attention.

The sedimentary rocks, differing greatly from each other in hardness, power of resisting the erosive action of the elements and in capacity for percolation by water, are nearly always inferior in these respects to the igneous rocks. Hence the elevated lands, whether mountains, hills, or chains of hummocks, locally called "koppies," have generally dykes of igneous rock for their axes, and these run in straight lines through the country for miles, some of them, perhaps, for hundreds of miles. Some of the smaller dykes do not appear above the surface of the alluvial plains or sides of hills, and these often form underground dams by arresting the flow of water through the stratified rocks. A line of springs, or the growth of rushes and trees indicating the presence of water under the surface, points out the line of such a dyke when there is no other evidence of its presence on the surface. Attention to these circumstances will often lead to the discovery of hidden springs. In this way a water-finder was very successful some years ago in his vocation in the Graaff-Reinet district; but whether or not he recognized the geological structure I know not.

Where a dyke runs across the outlet of a river or small

stream from a plain, as is often the case, and makes a more or less complete chain of hills with one outlet and minor depressions, advantage might be taken to fill up the outlet by a wall, and a large dam or lake would be formed, and the stream led over a neck in the chain to the plains below. Such a wall just above the town of Graaff-Reinet, 200 yards long and 500 feet high, would form a lake nearly as large as Derwent Water, and the river (the Sunday) might be led over a neck, deprived of its load of silt and shorn of its destructive and unmanageable impetus, to fertilize the great plain bounded by the Camdebo and Tantjesberg mountains.

Works on such a scale are, perhaps, beyond our means in the existing state of the country, and possibly may never be practicable with rivers like ours ; but with minor streams they might be carried out even by private enterprise, and eventually the broken impetus of the tributaries would tell on the rivers, and render them more manageable for works of irrigation in their future course.

It is true that there are many impediments to irrigation on a large scale in this country. The absence of a summer supply of water from melting snows mentioned before is a serious one. Most of our rivers, too, have a very rapid descent ; the Sunday and Fish Rivers fall twenty feet per mile, and their currents are consequently swift, and their channels deep and bare of the sedges and other plants which check the impetus in other streams. But that much may be done even in some of our larger rivers, the experiment of Mr. Parkes, of Wheatlands, on the Melk River, clearly shows. A weir has been thrown across the stream soon after it emerges from the mountains ; flood-

gates allow of the water being led to a depression in the land, when the silt of the river has passed away, and thus a large piece of the Karoo plain has been brought under cultivation.

In October, 1866, I passed over the bare plains between the Melk River and Graaff-Reinet, just after a heavy shower of rain. The "by-road" was running knee deep, in every hollow was a fine running stream, while the gullies were great torrents now, which in a few hours you could pass dry-shod. Yet most of these channels presented spots where much of the water that was rushing uselessly and destructively to the sea might have been stored. It was sad to contrast the beautiful orchards, vineyards, and corn-fields we had just left with the dreary, monotonous flats, and to reflect that all that was wanting to convert that wilderness into a smiling garden was speeding away to swell the rivers into dangerous torrents, and carrying along with it some of the most fertile soil of the country.

How much damage is done by this violent sweeping of the surface by the heavy rains I need not dilate upon here ; but will glance at some circumstances which, I fear, tend to increase the mischief, and suggest some means of modifying them. I fear the present system of employing the greater part of the land in sheep-farming (if farming that can be called—farming which consists in letting the sheep roam at will over the uncared-for land) can never greatly increase the population and wealth of the country. Sheep follow each other, and trample the ground into paths, which become gullies, and rapidly drain the surface.

Over-feeding leads to the destruction of the edible plants and grasses, while the useless plants, unchecked in

the maturation of their seed, grow out of proportion to the other. The bare ground gets hardened by the feet of the sheep, and is thus rendered more impenetrable to the rains. All these causes of deterioration would be much abated by ploughing, where practicable, the soil, and sowing useful grasses. Here I would deprecate the criticism of practical men on the advice tendered by one who has no personal experience of farming; but it must be obvious to any reflecting mind that crops of wool, which contains so much of the salts of the soil, cannot be taken year after year off land, the surface of which is never renewed by ploughing, without deteriorating it materially. But though I believe that the causes of damage to the country by the agencies I have just mentioned are of much more importance than is generally admitted, there are others which are of a much more serious nature, and which involve much more disastrous consequences to the water-supply of the Colony. The destruction of woods and forests, by cutting down the trees without any provision for their renewal, I hold to be fraught with very serious evils. The influence of forests on the rain-fall and drainage of a country is so generally known that it would almost seem superfluous to dilate upon it, but for the obvious fact that it is so generally disregarded in this country, and that some districts seem to be threatened with ruin in consequence.

I will mention briefly some facts bearing on this subject.

Humboldt, in his Travels, describes the great depression of the waters of Lake Valencia, in South America, caused by the destruction of the woods on the hills in its

neighbourhood. Dr. Garner says that the cutting down of the wood round Rio de Janeiro diminished the water-supply of the city so much that the Government was seriously alarmed, and adopted stringent measures to put a stop to it, and repair the injury done, by planting trees. These appliances have in a great degree remedied the evil.

No one who has lived in Port Elizabeth for many years can doubt that since the little ravines in its neighbourhood have been denuded of their wood the streams in them have been very much lessened; some of them scarcely ever run now, which were nearly constant rivulets some years ago. The barrenness of the Campagna of Rome, and the unhealthy atmosphere of the Maremma of Tuscany are traced to the destruction of the forests on the Sabine and Alban hills, and the slopes of the Appenines.

Forests affect the water-supply in several ways. The soil and dead leaves about them retain the rain that falls, and its evaporation cools the surface of the earth, while the air is loaded with vapour, and whose condensation by cold currents gives rise to rain. The water, instead of running rapidly off a bare surface, is retained, and slowly percolates the earth to supply the springs.

The choked-up rivers, which have changed the Pontine fields from a rich and populous territory to a pestilential swamp, where only a few buffaloes can find sustenance, and where a man cannot sleep a night without catching a fever, are supposed to owe their present condition to the loss of the forests. The quantity of soil on the hill sides, deprived of the support of the trees, and carried down by the waters running quickly off the bare surface

has silted up the streams, and poured their waters over the low plain. To the same cause is attributed the destruction of the many populous cities of old Etruria, whose ruins add to the desolation of the fever-stricken Maremma. It is consoling to know that what man's ignorance and recklessness can destroy his skill and intelligence can restore, and that the Maremma is being recovered to salubrity and fertility by an ingenious direction of the silting process in the rivers to the restoration of their channels.

That the shade afforded to the streams by the woods of the ravines is of great use is proved by the damage those near Port Elizabeth have sustained. The planting of a poplar grove about a spring in the bare highlands of Graaff-Reinet and Richmond is often followed by a great increase of the stream. I have never seen the female poplar in this country. Has only the male been introduced? If so, would it not be well to import the female, as I believe it is now propagated exclusively by slips?

Large trees present points for conveying the electricity of the atmosphere to the moist soil at their bases, and by this means are probably of great use in increasing and modifying the rain-fall. It certainly does appear that rain falls in greater quantities, though in a more steady and continuous manner, in high countries thickly clothed with wood. The loss of forests diminishes the average annual rain-fall, and the showers are heavier, and so the water runs off faster.

The late burning of the grass and forests in this and the neighbouring districts was a deplorable calamity, not only by the actual destruction of property and the distress occasioned to the sufferers, but by the loss of woods,

which it will take the care and thought of generations to replace. Is the barbarous husbandry, or want of it, which makes annual grass-burning necessary, never to give place to a better system?

The arrest of the waste of tree-growth which is now in operation all over the country, and some provision for restoring the woods destroyed, I think are of very great importance to the country; but I think more than this can be done.

That trees may be made to grow where Nature has not planted them is proved by the covering the sands of the Landes of Bordeaux with forests of pine, which in two or three generations will convert bare and useless wastes into a fertile soil, whereon corn may be grown.

The sands near Madras have been planted with Casuarina trees, which have effectually fixed them, and will furnish firewood in abundance. In a tour through North Wales, a friend pointed out to me many pine-covered hills which he remembered twenty years before as scantily clothed with heather and only supporting a few goats.

Have we not in this country the pinewoods of Rondebosch and Wynberg, and the fine plantation of Hope's Garden in Graham's Town, as examples of what can be done in this way? Thirty years ago there were only a few isolated trees at the foot of the hill which they now almost cover. But it is in the mountainous districts of Graaff-Reinet, Cradock, &c., that I should like to see the hills clothed with trees. The examples I have just mentioned show that a plantation only wants a beginning; it will take care of itself, and spread after a few years of care. Doubtless the beginning would involve effort

and pains at first, but many spots might be found where a small dam in a shallow valley would supply the young trees with water enough for their support, and they would only want defence for a few years. Every dam should have trees well adapted to the locality in its neighbourhood. If ever the lakes I spoke of above come into existence, one of their chief uses will be as nuclei of forest growth which will spread on the hills around them.

I congratulate Mr. McGibbon heartily on his success with the olive. I believe that wherever the wild olive grows the European tree would take its place and bear its fruit in abundance to afford a valuable article of home consumption at least, if not for exportation; while its extended growth would help to clothe our bare and almost useless hills with trees to fix their soil and preserve the rain which falls upon them.

I have thus fulfilled the task I imposed on myself of drawing attention to some of the means by which human agency modifies the climate of the earth. If I have not done so to the satisfaction of the reader, I shall not be disappointed, for I have certainly not done so to my own. And I must beg him to put down the shortcoming to the fact that in the hot and exhausting weather which is just passing away I have found my professional work almost more than enough.

I have not entered on the question as to how works of irrigation are to be carried on—whether by Government or private enterprise, aided or unaided,—or whether tramways or railways should precede or follow them. This I must leave to others whose pursuits in life have rendered them more fitted to discuss it.

BY THE SEA-SIDE.

A PHYSICIAN'S HOLIDAY.

"Carry me out—Oh! carry me out, dear Mother, into the sunshine—*
"Let the fresh breeze cool my burning cheeks and my temples. You tell me
"The fever has left me; yet I feel sinking, slowly sinking,
"Day by day. Food, physic, and wine!—wine, and food, and physic!
"And nothing but spiders to look at! No sound of a voice but a whisper,
"And old nurse's shoes, afraid to creak! Wine, and physic, and jellies—
"Jellies, and physic, and wine!—what good will it do me? How long shall I linger?

* NOTE FROM AUTHOR TO EDITOR.—I am really quite incorrigible; but the misfortune was, I happened to pick up Longfellow for a few moments before I started—a thing I hadn't done for years; and on taking my pencil and book out down there to scribble something, as I promised, I could not get rid of the jingle. So much for one's latest impressions! It went all very well there—down on the sand-hills; but it was a very different affair keeping up the same style on my return, bothered with practice, and never having five consecutive minutes I can call my own. I was down at the Kleinemond three days, including one spent at the Kowie, and hard at work, riding, hunting, fishing, bathing, and exploring. So that no time was left for writing; and I said to myself:—"Never mind, I'll finish it when I get home!" But I found my mistake. I've had four country journeys since I came back, and scarcely a moment of leisure.

"The hardiest wild flower won't thrive in the dark, but grows sallow and sickly,
"And dies. *I* shall die, *too*, Mother. Oh! take me out in the sun-light,
"*Where I can breathe!*" Tenderly up on the mountain they carried her,
Where the roads to Port Alfred part, and the sea-breeze always lingers
In the grove of wild cypresses, overlooking the valley.
How pale she lay, and motionless! no sign to show she was breathing;
And the kind nurse whispers the Mother—"*She's sinking!* I knew it would be so!
"*The sea air's too strong for her!*" But the fresh breeze was fanning her, the bright sunshine warming her,
Kindling the little life left, as she calmly slept in the carriage.
From that sleep, so calm, so delicious—the fresh-air slumber
That follows the invalid's first escape from the sick chamber—
She awoke with a gentle sigh, deep, long, and enjoyable.
"I can sigh *nicely now*, Mother!" I feel as if down in that valley
"*I could only breathe half way!*" Her chest expands slowly, deeply,
Greedily inhaling the soft fresh breeze that sweeps over the mountain.
New life through her torpid veins rushes; her sunken eye brightens;

And a smile—the ghost of her own sunny smile—plays over her features,
As she lies gazing down on the wooded kloof, and the sun-lit krantzes
Far, far below, in dreamy reverie of the "Waterfall,"
And the cool, clear rock-pools, and tree-ferns, and merriest picnics
Of holiday time. A shadow passed over her features; a vulture
Sailing slowly above her, close—impudently close—and lazily flapping
His wings as he passed, peered down, with his own peculiar notions,
On the corpse-like figure. Away he swooped with motionless pinions,
Down in the valley. Shuddering, she watched him; then breathing freely—
"Look, Mother, look! there's the SEA, so clear and blue in the horizon!
"Oh! take me down to the sea—to the dear old Kleinemond—
"To the 'Three Sisters.' You'll promise to take me, won't you, dear Mother?
"You'll not take me back to that sick-room, dark, dismal, and dreary,
"Where even the mice daren't play!"
Exhausted, she sank on her pillow.

* * * * * * * * *

"The dear old Kleinemond!" have you been there, dear reader?

Not seen the Kleinemond? never yet been to the "Sisters"—
Or "Bats' Cave"—nor heard the "Wolf's" roar as the storm-wave rushes
Into his cavern? Bless me, dear reader, I envy you
As I would envy the man who had never read Pickwick!
What a treat is in store for you! Never yet visited "Tharfield,"
The garden of Albany, with its evergreen parks and rich cornlands,
Its soft grassy slopes, wooded kloofs, and deep "vleis," with the broad-leaved lotus
Wafting delicious perfume around? Never, dear reader, in ecstacies
Looked down on the waving corn, dark woods, and the broad expanse of blue ocean,
From "the Patriarch's Grave" on the hill, where the Pioneer Settler,
Scion of England's nobility, sleeps in the midst of the wild flowers
Himself had planted, under the huge grey stone brought up from the valley
By his seven stalwart sons, all lifting together—labour Herculean—*
Men like their sires, who have nobly played their part in their country's history!
Know you not Holden the brave, of a hundred battles the hero—

* NOTE FROM AUTHOR TO EDITOR.—I might have made the grave and end of Miles Bowker—Bourchier was the original name—more effective had I had time. He was a grand old hero, a true naturalist, a man after my own heart, fond of all God's works and His unwritten word in the rocks and trees. His sunset was cloudless; he chose his own grave on the hill, looking on the sea, emblem of eternity, and almost buried himself in his own little garden, amid the wild flowers he loved so well.

(Including that last fierce fight in the Senate for COMPENSATION ;
True, he failed there, yet fought manfully—"might is the RIGHT of the strongest,
"And *justice* means simply *expediency*"—*so it was voted!*)
I see him before me now, with his household gods around him,
His long-bows, boomerangs, stone arrow-heads, quaint weapons, ancient and modern,
Assegais, war plumes, and shields,—skins of the wild-cat and tiger.
In garb of our Frontier "War Police"—tan-coloured suit and white shako,
Tall and erect, as of old, he stands—whittling sticks for his children.
Grey are his locks and his beard, but the fire of his eye still unquenchable.
Gone is the glow from his cheek—on his brow sore trial and sorrow
Have furrowed themselves in lines broad and deep, as on sandhills the wave lines
Are furrowed and fixed by the sobs and the tears of the tempest.

* * * * * * * * *

IN a haze of golden light the sun went down, just as we reached the last of the lotus-covered "vleis" by the roadside, and drew up to breathe. The freshness of evening, the delicious fragrance of the wild flowers, the gorgeous tints of sunset, crimson, and gold, and purple, in a sea of pale green and cobalt, ever changing, blending, fading, and lighting up again in softer hues the

fairy scenes of cloud-land,—all tempt us to linger; but our steeds grow restless, impatiently pawing the ground, as, with distended nostril, they sniff the sea air.—"Tired?—ha! ha! ha!—tired, with a forty-mile galop, and the sea the terminus? *Is it not a holiday trip to both horse and rider? Tired*, indeed!—ha! ha!"

On we go—impetuously, with a toss of the head, and short, sharp snort of joy, arching the neck to the ground. *On we go*, over the grassy hills and the park-lands of "Tharfield," through clumps of bright evergreens and the fragrant mimosa. Even Tom, the Kafir "achter-ryder," seems waking up; some influence other than tobacco is rousing him, brightening him—he scarcely knows what or why. He would fain prick up his ears, too, like his horse (so he told me!), only they are too flat! Tom was reared at a mission station in the far interior, and has never seen the sea—never before felt its influence!

On we gallop in maddest glee. The bright hues have faded; island and lake and spectral ship, mountain and castle, and huge cloud-profile of faces we know, have slowly melted away into one uniform grey, and night hurries down through the sky. Cautiously we feel our way through the corn-lands and mealie-fields, over the furrows and stubble; and, dismounting, descend the last grassy hill into the valley of the Kleinemond.

How soft is the murmur of the sea!—how mild and still the night air! Brightly the light of the camp fire streams over the water from the opposite bank, myriads of fire-flies light up "the bush" in their zig-zag gambols, and the startled curlew flies shrieking up the river, as we canter gently along its shore to the beach.

With sudden start and snort of terror, backwards we rush in the sands, trembling terribly all over at the unearthly fires—the pale blue phosphorescent flame of the waves that come tumbling in from the darkness, making the whole coast luminous at intervals as they blaze on the beach, and are quenched with a *hiss-s-s!* The pale flash lights up for a moment Tom's empty saddle, and himself erect on his head behind his trembling steed. "Mawauw!" howls the achter-ryder, more in bewilderment than pain, as he slowly rises through a shower of falling stars, holding his reeling head steady that he may look more distinctly (as he afterwards told me) at the "boiling waves of that lake of fire," where the good missionaries had told him he would one day be thrown, to simmer eternally, if he stole mealies! Poor Tom! He had fallen heavily—stunned, in fact, for a moment—thought he was killed and in star-land, and that his teachers' prophecy was really coming true!

On we go again, with much coaxing, along the hard beach round the river's mouth, when suddenly another snort and rear, and positive refusal to move! Cautiously I walk up to some dark object close by, and, with loud shout of recognition, fraternize with a group of small children on a low sand-hill, homeward bound from a picnic! They had lagged behind, as is the custom of all small children, at the sea-side, and had gathered there to rest and watch the waves on fire, wondering if they would come into the river with the tide, *and burn the tents and wagon!* Bless their little hearts and their baby theories! How *naïve* and refreshing they always are! What queer questions are asked as we tie their heavy

bags on our horses, and lead them up the river! "How did the waves take fire?" asks one. "Spontaneous combustion," shouts another, laughingly, behind. "Are they 'will-o'-the-wisps' dancing over and under the waves, as they do over the graves in the churchyard?" asks a third. "Spirits of the deep—ghosts of drowned sailors—of the dead that have died on the sea, waiting for doomsday!" solemnly suggests a soft, deep voice. "Maw-a-u-w!—Spo-o-ke!" * whispers audibly Tom (Kafir), looking back at the unearthly *sheen*, so unlike anything he had ever seen before.

What a rush and a scramble and a roar of throats, and pheuw!—what a roar of throats!—what a rush and a scramble! What friendly wagging of tails and caresses greet us as we enter the light of the camp fire streaming through the trees, and the steam of sputtering "carbonatjes!" Saddles are off in a jiffey; bundles and bags untied; horses away to snug quarters cut out in the bush for them. *Quick's* the word *now*,—the odour of supper spreads everywhere. Tom joins his friends at their fires; and our little incognitos steal off unseen in the darkness, well knowing they'll "*catch it!*"

Through a portico of gnarled trees arching overhead, stooping, I enter the spacious marquee, painfully bright to the eyes. In the centre a long, rough, extemporized table of poles stands with its snow-white table-cloth, loaded with spoils of the chase—of the land and the sea—smoking and savoury. With cordial greetings from all, and a kiss to the rollicking baby (who madly *insists* on

* Ghosts.

it!), with kindest excuses and pleas for the little delinquents, whose bright sun-burnt faces pop up one by one quietly under the canvas, we soon are all seated, on box and stool and back-bone of whale, and other sea-side contrivances. Was there ever a score of happier, merrier, jollier faces grouped around any festive table before? Was there ever a feast more *recherché*, or table laid out more invitingly? As to the viands and their mode of disposal, your grandest civic feasts were, in comparison, dwarfed to mere luncheons, for we had the true "sea-side sauce" (downright hard work and ozone, with a touch of salt-water), giving a zest such as folks in the towns can know nothing of! How disappeared, as by magic, the fish, fried and boiled, elf, springers, and roman! How walked off savoury cutlets, huge slices of venison, crisp "carbonatjes," juicy and tender, and limbs of plump partridges, slipping away unnoticed, midst jokes and loud laughter, with yams and potatoes, and camp-cakes! How ebbed the new milk in the huge tin tureen in the centre,—and dishes of dates and dried apricots, raisins and walnuts, disappearing mysteriously in the pauses of marvellous anecdotes! The night wears on—the loud talk slackens, grows graver, more serious; weighty questions are asked and discussed in an undertone; the little philosophers bring up their half-finished theories of the "burning waves," and how they took fire; questions perplexing one put about ghosts in the offing, sending a shudder of horror through half-awake listeners! "Can they be *really* fires lit by ghosts of drowned sailors, outspanned in Cawood's Bay?" asks, *naïvely*, Master Inquisitive—"Where do the spirits live

till the last trumpet calls them to Heaven? We know they can *never die*. Do they go up to some star? or stay where their bodies are, guarding them, hovering about over graves, and the waves in wild rocky bays where the shipwrecks have buried them?"

"The light is not THEIRS which you see; it is all *electricity*, caused by the friction of storm-waves dashed on the beach, charging the spray, as the mists on the mountain are charged, with electric light, when it streams from your horses' ears and manes, from the whip, and every projection, just as 'St. Elmo's fire' shines in a storm from the mast-head steadily."

"Electric fiddlesticks!" archly remarks a bright-eyed lassie, the very incarnation of health, fun, and jollity, sitting beside him,—"it's *not* all electricity, Master Bob, and it *isn't* the *spirits;* it's the *sea-champagne*, that effervescing kind of laughing-gas, that makes us so happy and jolly down here, for ever laughing and singing, as we drink it in. You wiseacres call it '*ozone*,' because you don't well know what it is; but *I* know,—it's '*all tropical* oxygen*,' as Faraday says, for haven't we seen it to-night brought down from the tropics by the Gulf Stream, and churned in the boiling waves—our huge manufactory of this elixir of life and health, which the winds waft up to the mountains? It is this 'ozone,' this sea-champagne that makes the waves luminous, isn't it, Doctor?"

"Science decides quite otherwise," I reply, sorry to shatter so truly ingenious a theory. "It is not the *champagne*, it is *jelly* that lights up the waves!"

* The young lady misquotes Faraday. He says ozone is *allotropic* oxygen.—Printer's Devil.

"Jelly!" she sneers, with incredulous whistle,—muttering "jelly, and physic, and wine—wine, and physic, and jelly! No, I can't swallow that—*that* won't go down, Doctor—your theory 's simply ridiculous."

"Jelly!" echo the rest, opening their eyes wide, "You can't be in earnest?"

But I *am* in earnest, and assure them that the luminous appearance of the sea is due to medusæ and other queer jelly fish, to myriads of living organisms of most delicate, elaborate structure, and exquisite colours, bright creatures of nothingness, visible only by their light, and melting away as you look at them, leaving no trace behind of their wonderful complex organization, the slightest tie of electric life holding their structures together.

"Organized 'will-o'-the-wisps,' brilliant marine soap-bubbles, with the breath of life breathed into them," says Bob, the visionary, looking hard at his fair neighbour—"like some OTHER bright creatures I know, with just nothing at all in them—mysterious visions of spirit and matter, in its most etherial form, on the frailest possible terms, which a breath may dissolve,—mere phantoms, in fact, of creatures that have been or are to be, yet living, and moving, and *having a will of their own!*"

"Or rather, perhaps, Master Bob, like some *minds* that *I* know, with neither *spirit* nor *matter* in them, nothing but fog and dreamy illusions," quoth his sprightly neighbour,"—whom I now recognize as the Ghost of Woesthill—the corpse we saw in the carriage, whom the vulture looked at so lovingly, wistfully. What a marvellous change has a month of sea-air exercise, camp life, and sea-bathing wrought in her! No wonder she raves about

sunshine and ozone, calling it the elixir of life! Contrast her former self as we saw her then—her pale, sad, melancholy features, bloodless, expressionless; her half-open, dreamy eyes fixed, gazing, half way between this world and the next, at nothing,—with the bright, happy, joyous creature before you now, looking up into Bob's face with those large, dark, lustrous eyes, beaming with mirth and intelligence.

"*Bob go to bed!* you're in dreamland already—you'll frighten the children with your ghosts, and your spiritual soap-bubbles and moonshine!"

Out in the moonlight stalks Bob, at the word of command, and we all instinctively follow him. The moon was high in the heavens, pouring down a flood of light through the trees on the sleeping camp—some coiled up round the fire in karosses, some in the tents and wagons. The last of the "voices of the night" that I heard as sleep breathed over me, was the "Ghonya"* shrieking in the woods afar off like a wounded ghost.

* * * * * * * * *

At daybreak I start with a bound, like an India-rubber ball set free, as the heavy hand of sleep is suddenly lifted; up we all bound from under our karosses at the sound of the coffee-kettle getting itself hurriedly boiled on the crackling fire. Quickly gathering our towels, and waking the sleepers in tent and marquee, away we run to the beach to

* The "Ghonya"—one of the genus Pneumora—is that extraordinary inflated ghost of a green grasshopper, with nothing but air in him, blown out till you can almost see through him. His colonial name is derived from his cry—"Ghonya-ghonya," often heard on moonlight nights in the woods of Lower Albany.

wash off the relics of sleep in the foaming breakers. Wave after wave greets us with threatening roar and hiss of defiance as we dash through them, hurling the spray and the stinging sand fiercely against us, now and then sending us spinning round in the eddying surf, fairly knocking the breath out of us. Up we struggle again, battling stoutly with the advancing columns, proudly arching their crests, shaking their war-plumes of spray. The shock of each encounter drives the hot life-blood up to the tips of the fingers and ears, till we blush and tingle all over with a delicious glow as we leap up into the foam, or dive beneath it into the blue valleys beyond. Another dive under the "wall of waters" curling over us, and we are out of the region of surf in the trough of the waves, rising and falling like floating sea-wrack as they sweep past us. Hurrah !—here comes a glorious fellow, towering above the rest,—quite a "*swell*" in his way, with light, feathery crest,—let us walk in on him ! On we glide, smoothly, swiftly,—higher—still higher, the shore wind dashing the spray in our faces as he suddenly rears and bends over, and, sputtering and foaming, tosses us headlong off in the boiling surf. We pick ourselves up somewhere on the beach, red hot with excitement and violent exertion. Through the tingling veins the heart pumps the life-blood, madly "flushing" the drains, and clearing off all impurities.

Now for a race on the beach, like mad schoolboys let loose for the holidays. Now, a fair start, boys, and—back again. Now, just another short race of a hundred yards or so,—to the lesser Kleinemond, and in we all plunge, disappearing under its glassy surface,

leaving our ripple only, circling and sparkling in the reflected hues of early morning. What can be more enjoyable—more invigorating! The delicious swim in its clear, still waters washes off the boisterous feel of the breakers. Under the lee of the wooded sand-hills we quietly dress, and return to the bivouac. Meanwhile the ladies have stolen off unobserved, and whilst they are enjoying their sea-side orisons after their own fashion, buffeting the waves in their bathing-dresses before the sun rises to look at them, holding hands like a string of Alpine travellers tied together, lest the timid and nervous be swept away, let us enjoy our "daylight coffee," and quietly take a stroll through the camp. Lest, gentle reader, you should chance to be a stranger (to our "veldt" and geography), let me premise that the *Kleine Monden* (or Little Mouths) are two sister streams which rise close together near the "Round Hill," in Lower Albany, and after winding through some of the most beautiful and picturesque scenery in South Africa, unite again on the sea-beach midway between the Kowie and Fish Rivers. Twin sisters at birth, fed by the self-same showers from heaven, each pursues its separate course through varying scenes,—now bright, and soft, and lovely, in winding sunny reaches by waving corn-fields and orange groves,—now darkly grand and rugged, in deep, still, shadowy pools, called "Zeekoegaten," the former haunts of BEHEMOTH, with wild, inaccessible crags and forest-covered kloofs frowning down on them,—at one time, miles apart, babbling over rocky bed,—then flowing side by side silently onwards, till, with a last embrace, they glide together into the ocean of eternity.

It is on the banks of the Western "Kleinemond," or "Lynedoch" (the elder, darker, more romantic sister), that our camp is pitched. In a "clearing" in the bush, close to the river's edge, and scarcely a hundred yards from the beach, stands a large military marquee, its lines fastened to shrubs and stems of trees, which, meeting overhead, shade it from the hot rays of the summer sun. The trunk of a fine old tree, a yard in thickness, guards the entrance, one giant arm bent down to the ground, and rising again as a separate tree, loaded with delicious red berries, known to us boys as "*sea-shore dates*" (and *didn't* we pitch into them!) It was here, in former days, I used to sling my hammock, sleeping securely just above the blackened hollow in the fork, in which a queen and her happy colony had located themselves, bent, like ourselves, on enjoying the "sweets of life" at the sea-side,—wandering through the woods, and up the flowery river banks, revelling in

> The sunshine—the delicious air,
> The fragrance of the wild flowers there.

We never molested each other, and came at last to consider ourselves as part of the same family of "holiday-seekers,"—intimate friends, in fact. Our pleasures, our pursuits never jarred, except when some bold fellows came *wickedly* into our tent and stole our "honey of bees" off the table; which, however, we winked at, having ourselves stolen it from some wilder hive. There was plenty for all; why quarrel? So we lived and stole together, happily, and never fell out. But our friends had other enemies, and the "indicator" often came chattering familiarly, trying to coax us to help him in

robbing the nest, but we pretended not to understand him. This reminds me of an anecdote told me by Holden Bowker,—Laird of Tharfield, who dwells on the opposite hill,—a short time after it occurred. He was standing at his door one summer's morning, when he heard distinctly in the valley below the well-known double grunt which the natives and colonists utter to greet or cheer the "honey-guide" as they follow him to a nest. "Aha!" thought he, "some vagabonds poaching on my preserves, hunting out my bees' nests!" So down he went, rifle in hand, to punish the rascals. Cautiously he followed the sound through the wood, all up the river trying in vain to catch a glimpse of the villains. At last he got within a few yards of the "indicator," and knew by his peculiar cry that he was close to the nest. He hid himself in a tree and watched breathlessly the answering grunt of the *poacher*. He had, up to this time, followed closer and closer, yet he saw nobody. Suddenly, a ratel, or Cape badger, made his appearance, and climbed up the hollow stump of a tree under the "indicator." He watched the fellow scraping out the combs with his paws and eating them, throwing some down on the ground. After being perfectly satisfied as to the identity of the thief, he put a rifle ball through him for the petty larceny, and appropriated the rest to his own use, leaving (as is the custom) a lot of combs, with young bees in them, for his feathered friend, the "indicator." It is, therefore, the "*ratel*" which has taught Kafir and colonist how to talk to the "*honey-guide*." He shouts to the bird—"Come, come," in his own queer grunting dialect; his friend the cuckoo

answers gaily with his "che-chur-r-rr-rrh, che-chur-r-rr-rrh," cheerily leading him on. Right well they understand each other, and having found and *fumed* the nest he takes it out and shares the spoil. Our farmers, more unscrupulous, if the nest proves *poor*, or should they covet more, hide up the comb, and urge the poor bird on, who often shows a dozen nests before he gets his scant reward of honey-comb and bees. I once was told a clever mode of finding nests without the aid of honey-bird. Towards sunset, when the bees are laden heavily and ready to fly home, a Tottie boy caught two on the same flower, and tying threads to the hind-leg of each, he let one go, marking its flight by bushes in the distance and close by; then taking the other two or three hundred yards off to the right, he likewise let him go, marking his line of flight by bushes as before, carefully watching when the two lines intersected; here, of course, he found the hive, for each flew straightway home. A genuine instance this of native triangulation,—given two angles and the base to find the apex, *i.e.*, *the nest!* Bee-hunting has become as much a "Frontier institution" as was "cattle-stealing" of old. I have heard of one farmer in Albany who has this year robbed four hundred nests, and another already has stored this season two hundred bottles of honey! Nor can you wonder when you see the profusion of wild flowers everywhere in a fine season. Just look around our bivouac. The wagons, drawn up on each side of the entrance, stand on a bed of wild flowers; the side tents, fixed from their roofs, serving as sleeping rooms, are carpeted with flowers; the evergreen shrubs and trees around us are chequered

with flowers of most brilliant hues and exquisite fragrance, creepers and trailing plants matting the trees with dense masses of sweet-scented blossoms; the purple convolvulus peeping out modestly from the intertwining Cynoctonum; the wild jessamine and fragrant clematis—the "traveller's joy,"—vying in sweetness with the wild "katjepeering" and the overpowering asparagus. The whole air is redolent of perfume exhaled by the wild flowers, silently fulfilling their destiny, doing the work assigned them, elaborating essences of which the bees rob them, and *we* rob the bees. Wonder of wonders! Yet who ever thinks, when plucking a flower, of the mystery involved in the marvellous part it plays in creation? Whence come its sweetness, its colour, its fragrance, its subtle, ethereal odour? How is the nectar prepared for the bee? Where the materials? By what agency fashioned? Can the soil alone be the scource from which so much of beauty is endowed with life? The *Sea-shore Bible* suggests a thousand questions like these. Shall a thousand holidays suffice to work out the answer? Can the soil alone be the source from which so much of beauty is endowed into life and being—mere organized atoms of clay like ourselves? By what *force*, by what agency organized? If light be the agency, how with the night-blowing plants,—flowers that blossom but in *darkness*, that are born, live their lifetime, casting their exquisite fragrance around, fulfilling their destiny in a single night, and withering and dying ere morning? If light *be* the agency, who wields the sunbeam? What power fashions the clay into organized structures, endowed with life and functions so complex that even the most

powerful microscope fails to reveal the extent of their wonderful mechanism! Far beyond powers of *sight*, aided by all human contrivances, exist these clay atoms still, known to us *by their effects only*, as ethereal essences, —causing intensest enjoyment and pleasure, or as emanations more infinitesimal still, carrying death and disease far and wide, unperceived by our senses.* *Who* made the clay atoms poisons? WHO changed their nature—organized, vitalized, etherealized? WHO? Echo shouts back in the silence, from the rocks and the glad sand-hills, through the woods, far up the river, fainter yet fainter—WHO!!!

But come along, dear reader; take care of those tent-lines, or you'll trip and go headlong into that bush of "Salvia Aurea," where our bees may resent the intrusion! Now lift up that loop of monkey-rope the boys have pulled down for a swing, and up which, like monkeys, they often climb into the trees above you to gather the wild fruit. What's up now? What are you gazing at?—those bright-banded shells on the trees are *Cyclostoma*. There are lots of them here round the camp; they live on the trees in the sand-hills. Another more delicate, beautifully long-spiral shell is also found here,—unknown, I believe, to conchologists, or as yet unnamed—which we have never yet found alive, though its shells are by no means uncommon.† Now we come to the kitchen—the jolliest place in the

* I saw the deadly *Toxicophlœa Thunbergii*, with its deliciously-scented blossoms and deadly juice, growing side by side on the sandhills with edible fruit! The Bushmen used it for poisoning their arrows. The aroma and deadly virus suggested the idea of the poisonous emanations as well as malaria.

† This shell was sent home some years ago by Mr. E. L. Layard. It is supposed to be a marine species of a new genus, and has been named by Mr. Angas, *Cœliaxis Layardi*.

camp—always something savoury going on *here*,—frizzling and hissing, and making one's mouth water! How cosy and snug these black fellows make themselves when "at home" in the bush, choosing a spot where the thick shrubs and underwood screen the fire and answer as bed-curtains; the leaves of the wild vine and cissus and the ivy-leaved geranium form, as you see, quite a thatch overhead. Hallo! here's poor Tom looking quite ill, drying himself by the fire. "How's your head, Tom? Are the stars and the 'spo-o-kes' all gone?" "Head better *now*, Baas, very much bad in the night—much dream and fever, much falls and thirst. I go *early* down to the vley, Baas,—*Maauw! she's salt, the big vley!* bitter salt, no good for the thirst." "Ha! ha! I should think not, —we call her '*the briny Deep*.' Did you see any *ghosts*, Tom?" "Oh, yes, Baas, lots of 'em dead on the sand; you can see through them—nothing but *jelly*, Baas, just as you told us. I turn one big chap over in the water, with red and blue tails. Auw! *they sting* those jelly goose! Big sea terrible angry! He stamp and swear and spit, and run after me! I run too, let go jelly fish, look back,—*Maauw!* jelly fish gone; and far away in the water I see *devils*, with faces like men, swimming about with the fishes!!" Poor Tom, his brain must still be bewildered with last night's fall, to take us for a lot of sea devils. How lucky he didn't go later! the wild shrieks of the frightened bathers in their wet winding sheets at his sudden apparition on the beach would have driven him daft altogether! But here they all come, with elastic step, damp, and fresh, and awfully jolly,—the little ones running along because they can't help it.

What a glow the breakers give to the cheek—a blush ethereal, like the roseate tint of morning, a clear and transparent *glaze* of health over the purified, ozonized, life-blood shining through. Not much time is spent at the toilet, they toil at it not down here; though I *have* seen some "swells" at the sea-side, as if got up by their milliners expressly *for show* on the beach—walking advertisements, placarded all over in various ways, ☞ "look here! *look here!*" with big lumps of heavy gold dragging their pretty pink ears down; poor creatures, fancying them *ornaments*, as the Fingo fancies his big porcupine quills are, stuck in the rents of *his* ears! Innocent vanity! relic of barbarism! A few minutes spent in their tents, and out they all come, ready for breakfast,—neat and bright and sparkling, with appetites—pray don't mention it! Bless me! why here's Miss Ozone. I declare I should never have known her, so altered, so brimful of fun and mischief, of sea-side health and jollity; quick, vigorous, energetic in all things—in bathing, in walking, in talking, in thinking, as if she had never been ill in her life; she seems made for the sea-side and its wild playfulness. Bob, too, seems mirthful and happy. The canvas walls of the tent are unhooked to let in the flower-scented breeze, cool and fresh from the sea, and to give us a view of the river and the grassy hills opposite, and the kingfisher hovering and plunging, busily plying his trade. Suddenly the silence of earnest feeding breaks up with a shout. Who stands there, rifle in hand, in tanned suit of corduroys, like some veteran of the force called quaintly "Mounted and Armed?" No dog barks—but the children, at sight of him under the trees, rush off to

welcome him—" Hurrah ! "—it's the Laird of Tharfield, and his little boy " 'Old'un " (in Settler slang), the ditto repeated of himself. " Hurrah !" scream the little folk—" What fun we'll have *now ;* hurrah ! hurrah ! !" And no wonder they think so. By the twinkling eye you can see at a glance he's brim full of it—a lover of children and flowers, and birds and trees, and all God's other works, just as his father was. How unconsciously, interminably, breakfast prolonged itself—filling up intervals between racy stories and wonderful anecdotes of things that happened but yesterday. A few weeks ago a wild buffalo, driven by the hunters into the sand-hills at " Palmiet," near the Fish River, boldly plunged into the surf, and swam out to sea ; they followed him—hunters and dogs—to the Kleinemond, all along the beach ; thrice he swam in and landed, but finding their " spoor " on the sands, swam out through the breakers again, and finally beating them, came in by the reef yonder before they reached, and clambering up the steep sand-hills, escaped in the " bush !" What a deep breath we all take as the noble beast, after a neck-and-neck race of some miles for his life, baffles his pursuers, and gets free !—how the little folks stare—and how scared they all look at the thoughts of the buffalo lurking about in their play-ground, the sand-hills ! How pale grow their cheeks when they hear of two brothers who, some days before, hunting in the neighbourhood, met a large python, or boa constrictor, and after firing two charges of buckshot into him, broke off the stock of their gun, either in the encounter or in running away,—they scarce could tell which in the flurry !

Now he tells us of bees' nests by scores that he knew of, to be had for the robbing, and acres of gooseberries in the big kloof opposite, and promises to show us the kitchens of extinct savages and antediluvian manufactories of stone weapons, spear-heads and arrow-heads, and the spot where the Sea Devil lay in state, near the Sisters, three years ago.* Horrible creature, with a tail four feet long and horns nearly two feet (of his *hoofs* he said nothing), his mouth two feet nine inches, and measuring eighteen feet from the tip of one wing to the other! What a state of excitement he threw us in!—breakfast finishes hurriedly, with upsetting of seats; they're off to the beach, some to the rocky reefs left bare by the tide, and the sandy bays between them, rustling with shells and fringed by banks of fresh sea-weed and queer-looking jelly-fish,—some (you know who!) to the sunny sand hillocks, rolling down, sliding and shouting hilariously, regardless of boa or buffalo! Bowker and I mount our horses and gallop along the hard beach to the eastward, on much more important errand bent, *hunting for "spoor" of primeval man and his works in the sand-hills!*—Aye, you may smile gentle reader; it's a *fact* for all that. Man pre-historic—*primeval*, I mean, *we've* no history to date from—has left his spoor *here*, as in Europe and elsewhere, plain, unmistakeable,—a record in stone of some ancient pre-Adamite race, whose history is lost

* The dimensions and description of this extraordinary fish, washed up at the "Sisters" in 1865 were published in the *Graham's Town Journal* at the time. He was an enormous Ray, eighteen feet broad and eleven feet long. The distance between the eyes was four feet nine inches, and the length of gill orifice one foot nine inches. The story of the python is quite true; it occurred a week before I got down. The buffalo hunt was some time before. He must have swam five miles with only three rests. Bravo! old fellow; he deserved to get off—and weren't we glad he did—all of us!

in the night of Time, lies buried here in the sand-hills of Tharfield! Come along—we're in breathless haste to uncover a page of it!*

* * * * * * * * *

But what "spoor" is this? The track of two porcupines. Let us dismount and examine it. They have travelled along the beach, now walking side by side, now trotting one after the other. We'll follow them up in the sand-hills and see what they're up to. What wonderful sight is this!—the smooth sand is marked with contour lines like a plan in surveyor's office, a record *in black and white*† of the last gale that blew, printed here by the gale itself—the size of the crest and troughs of the air-waves as they swept along the coast, and the slanting pits of the rain-drops, and the misty driving rain dissolving the shelly lime and fixing and cementing the tracery! The next breeze that blows will cover them up with fine sand, and they're *safe* perhaps for ages—a record indelible for centuries to come of what happens now. Yes, even our "spoor" and our horses and dogs, and the tracks of the porcupines will be covered ere night, and centuries hence, perhaps ages, some prying geologist, soliloquizing

* It may be noted here that similar indications of a pre-historic race have been found on the Cape Flats and at East London. The stone implements include arrow-heads, spear-heads, sling-stones, flakes (various), &c., of which several specimens may be seen in the South African Museum, Cape Town. An interesting discussion took place at the late meeting of the British Association at Norwich, relative to these implements, which correspond remarkably with those found in Ireland, France, and Denmark.

† The hollows were filled with black iron sand, very abundant here, and the fine white shelly sand formed the crests; hence the remarkably beautiful contouring, exactly like the horizontal contouring of the draftsman, and as neat and perfect.

here, may exclaim, "Oh! here stood two civilized men (by the boots) with horses and dog and two *tame* porcupines, which they kept in those days; and it blew a gale from the westward, as shown by the ripple mark on this ancient beach, now the centre of a continent." Such things have been, and may be again, legitimate induction from the facts before him.

EARTH MEASUREMENTS

IN THE

NORTHERN HEMISPHERE AND THE SOUTHERN.

ARISTOTLE (de Cœlo) states that the ancient mathematicians found the circumference of the Earth to be 400,000 stadia, from which the length of one degree was equal to 1111·111 stadia. By the term "ancient" he must have meant an era antecedent to the time of Alexander the Great. He does not, however, specify the kind of stadium employed by the ancients.

The standard stadium of Greece was represented by 600 Greek, equal to 606·75 British feet, defined by a pillar at each end of the foot race-course on Olympia, and named the Olympic stadium. The geographical stadium, according to Rennel, was 505·5 British feet, which is supported to a certain extent by a communication from Sir Henry James, R. E., to the effect that from the measure of the Hecatompedon of the Parthenon at Athens, by Penrose, the Greek foot was 12·161 inches, and from Stuart's measure of the same 12·138. Their mean, 12·150, gives 1·0125 feet, and 506·25 feet for the stadium. The stadium used by Xenophon for estimating the distances on the celebrated march of the ten thousand Greeks was 75 toises, equal to 479·6 British feet.

The Egyptian stadium was 50 toises and 2 feet, equal to 321·86 British feet. The familiar term "stadium" appears to have been in common use when travelling, without reference to inequalities of the surface travelled over, and was a function of time rather than of length, as people reckon the length of a journey by the hour.

For the comparisons which follow, the mean diameter of the Earth may be taken at 7916 British statute miles of 5280 feet per mile. The corresponding mean circumference is 24868·9, and one degree 69·081 miles, equal to 364743 feet, also one geographical mile 6079 feet.

Aristotle's ancient degree in British miles is represented as follows:

From the Olympic stadium	..	..	127·7
Do. Geographic ..	..	..	106·4
Do. Xenophon's	..	..	100·9

The errors in round numbers are 59, 37, and 32 miles. Montucla remarks: "But when we consider that geometry and astronomy were then in their infancy, we find perhaps that this first effort of the human mind to measure our habitation is not entirely unfortunate."

The next we have to deal with was the justly celebrated attempt of Eratosthenes, about 230 years B.C. Having understood that a deep well at Syene (Assouan), in Upper Egypt, was illuminated by the sun's rays and cast no shadow within at noon on the day of the solstice, he concluded that Syene was under the tropic; therefore the latitude of the well coincided with the sun's declination.

At Alexandria on the same day, he observed the zenith distance of the sun at noon by means of a style or

gnomon, and thus derived the celestial arc, corresponding to the terrestrial arc subtended between the well at Syene and Alexandria, which celestial arc was equal to one 50th part (7° 12′) of the circumference.

The distance between the well at Syene and the style at Alexandria he estimated at 5,000 stadia, which being the 50th part of the circumference, he concluded that the meridional circumference of the Earth consisted of 250,000 stadia. To this number he added 2,000, in order that in *round numbers* one degree should be regarded as 700 stadia, instead of 694·444 the correct 360th part of 250,000. The difference is equivalent to 2,812 feet.

694·444 gives for one degree by means of the

Olympic stadium .. .. .. 79·8 British miles
Of the Geographic do. .. .. 66·5 do.
Of Xenophon's do. .. .. 63·1 do.

or taking the 700 stadia adopted by Eratosthenes

The Olympic gives .. .. .. 80·4 British miles
The Geographic .. .. .. 67·1 do.

As the result from the geographic stadium approximates nearer to the true value of one degree (in British miles, 69) than by any of the other recorded stadia, there is little doubt that the geographic Greek stadium of 500 Greek feet was the unit of length contemplated by Eratosthenes, though, in his zeal for round numbers, its absolute length fell out of sight.

One geographical mile consists of 6,000 Greek feet or one minute of arc. One stadium consists of 500 Greek feet; consequently, one minute of a degree consists of 12 stadia, and 60 minutes, or one degree, of 720 stadia;

accordingly, 360 × 720 = 259,200 stadia for the circumference of the Earth.

Eratosthenes adopted 252,000 for the circumference, in order that the 360th part should be 700 stadia, in round numbers, the value of one degree. But one degree = 60′ × 6,000 feet = 360,000 Greek feet, which, divided by 700, gives 514·29, instead of 500 feet, the correct length of the stadium.

The ratio of the Greek to the British foot, derived, as before mentioned, from the mean of the measures by Penrose and Stuart of the Hecatompedon is 1·0125 feet. To test these numbers we have as follows: The British geographical mile consists of 6,079 feet, the Greek geographical mile consists of 6,000 Greek feet; the resulting ratio is 1·013175, log. (0·0056845). The difference from the other is 0·0007, equivalent to about 4 feet on 6,000, or one degree.

One of the best modern maps of Egypt gives 24° 5′ as the latitude of the spot which marks Syene, and 31° 13′ as the probable site of the great Alexandrian Library, in the Portico of the ancient city of Alexandria, of which library Eratosthenes was superintendent. The difference of latitude is 7° 8′. Delambre discussed the ancient astronomical observations, and concluded that the celestial arc was not one fiftieth, or 7° 12′ of 360°, but 7° 10′. The 2′ are equivalent to 1,163 stadia; therefore, the terrestrial circumference consisted of 250,000 + 1,163, or 2,511,163 stadia, needing only 833, instead of 2,000, as supposed by Eratosthenes, to obtain 700, in round numbers, as the representative of one meridian degree of the Earth's surface.

With respect to the probable accuracy of the observations, the well at Syene may be regarded as a wide zenith tube; the upper limb of the sun would illuminate the interior of the tube without any shadow, but it is stated that within a circle of 150 stadia from the well as a radius perpendiculars cast no shadow, consequently the sun's centre coincided with the centre of the tube.

At Alexandria the zenith distance was obtained from the shadow of a style cast by the sun. We do not know the height of the style, but to fix our ideas let us assume two of 10 feet and 5 feet, the differences in the lengths of tangents of the shadows of angles 7° 12′ and 7° 10′ would be for the respective heights 7 and 3 hundredths of an inch! From these we may infer the uncertainty of 2 minutes of arc.

Another adverse circumstance was the want in those days of tables of chords and tangents; consequently, the zenith distance must have been found by geometric projection. Finally, we are not informed if the shadow cast by the upper limb of the sun was corrected for semi-diameter (15′).

With respect to the terrestrial measure, Delambre states as follows: "Alexander the Great had caused to be measured the roads of Egypt by the *besmatistes*, viz., by the engineers or geographers, who determined distances by the number of paces (*βημα*). They had found the distance between Syene and Alexandria 5,000 stadia. . . . . That Eratosthenes knew better than any other person that it was impossible to answer for these quantities; that he had neglected the difference of meridians, also the detours of the path, which path was

assuredly not a right line, and that he had neglected the inequalities of the surface," &c., &c. It would appear by this statement that Eratosthenes had data for estimating the distance between the termini of his arc. As to the meridian of Syene being about 3° east of Alexandria, the effect on the distance would be small.

It would be difficult to decide the comparative amount of confidence deserved by the celestial and terrestrial numbers. Certain commentators have surmised the probability of the *scaphium*, and not a style, having been used at Alexandria. The scaphium was the small concave hemisphere of Berose, the Chaldean, contrived for a sundial, and unfit for observing zenith distances. And with respect to the shadow of the style being cast by the upper border of the sun, and not corrected to the centre, there is no trace of the omission in the numbers given below.

Adopting the stadium before described (consisting of 500 Greek feet), of which 720 represent one degree of the Earth's surface, we obtain the following hypothetic results :

Celestial Arc.	Stadia.	
6° 57′	5,004	
7° 8′	5,136	Derived from the map.
7° 10′	5,160	As corrected by Delambre.
7° 12′	5,184	Arc according to Eratosthenes.
7° 27′	5,364	15′ added to the latter.

The excess of each of the last four above 5,000, expressed in geographical miles, are respectively 11, 13, 15, 30. The last shows that the addition of 15′ is disadvantageous. All are in excess of the 5,000 estimated by Eratosthenes, instead of the contrary. The resulting

value of one degree is 67·2 British miles, as tested with the Greek stadium.

The attempt of Eratosthenes to discover the circumference of the Earth by actual measurement is the first on record, and the principles upon which he founded the operation are those adopted in the present day; in fact, he was the father of Geodesy.

The talents of Eratosthenes were of the first order. He was a poet, grammarian, philosopher, geometer, geographer, and astronomer.

Cleomedes, Posidonius, and Ptolemy, the geographer, wrote upon Geodesy, but did not improve it. They were mere speculators, and their conclusions were vague.

The dark age followed the expulsion of science and literature from their head-quarters in Alexandria, and nearly eleven hundred years elapsed from the time of Eratosthenes ere a second attempt was made by direct measurement and observation to discover the length of a degree of the meridian.

This effort was by Abdalla Almamoun, Caliph of Bagdad, whose reign began A.D. 814. He was a lover and promoter of science. He obtained instruments and caused the works of the Greek astronomers and philosophers to be translated into Arabic, and encouraged his subjects to study them. The degree was measured on the plain of Sinjar, on the border of the Red Sea, in the following manner. An assemblage of his astronomers were divided into two parties, who having observed the altitude of the pole at the starting point, one party marched northward, the other southward, measuring the distances with rods until each altered its latitude by one degree.

The respective distances were found to be 56 miles of 4,000 condees or cubits, the other $56\frac{2}{3}$ miles. The latter was adopted, and is recorded by Delambre and several other authors.

Paucton is of opinion that there is a mistake of 10 miles, and that the number should be $66\frac{2}{3}$.

Riccioli conceived the measure to be nearly one third in excess of the true degree. The cubit is stated to be a foot and half, but it is not known what foot is meant. We surmise that the Greek foot was meant, because Almamoun sought information from the Greeks, and the Greek unit of length diminishes the huge discrepancy promulgated by Riccioli.

Four thousand Greek cubits or condees = 6,000 Greek feet, = 6,079 British feet = one geographical mile; and $56\frac{2}{3}$ geographical miles = 65·2 British miles, differing by scarcely four miles from the true value.

Seven hundred years passed away from the time of Almamoun's operation before a third was attempted. On this occasion France had the honour of the step in advance. Jean Fernel was born at Clermont in the year 1484, and became a physician, as appears by an anecdote of him related by De la Lande. Fernel purchased expensive astronomical instruments. His father-in-law had a grave quarrel with him on the subject, and joined his wife in an endeavour to make him abandon "a ruinous taste, and devote himself to the practice of medicine in which he had great success."

How far Fernel gave in is not recorded; however, on a certain serene 25th of August, he observed the sun's altitude at Paris, and on the 29th he observed the sun

again at Amiens; certain corrections having been applied, the celestial arc of one degree was defined, tentative observations having been made *en route*.

The altitudes of the sun were measured with an instrument of considerable dimensions, described by Ptolemy as adapted for measuring the parallax of the moon, and named by De la Lande, "des regles parallatique en triangle," and which could be read to the accuracy of a minute of arc.

The terrestrial distance was 56,746 toises, measured by the revolutions of a carriage wheel, the diameter of which is recorded.

56,746 is remarkably close to the true value of one mean degree; the equivalent in British miles is 68·73. And that which is still more remarkable, his toise was found afterwards, as positively asserted by Picard, Azout, and others (Mem. 1·714), to be longer than the THEN admitted toise by a quantity which, if added to 56,746, would give 57,070, or within a toise of the truth! Assuming good faith throughout, which there is no reason to question, there must have been a rare compensation of errors, for neither the instrument nor the method could, *a priori*, be expected to furnish a close result.

Riccioli put forth his powers on Fernel's numbers, mixing with them the ancient Roman foot of Vespasian, and arrived at a conclusion which may have been satisfactory to him as a lover of things ancient, though at variance with things present.

A most important improvement in the method of measuring on the earth's surface was adopted in the next operation, viz., by measuring the angles of a series of

connected triangles in the required direction, and ascertaining the length of one of the sides in terms of a known standard of length, which side as a base serves for determining by trigonometric calculation the sides of the whole series.

The direction of the meridian is found by determining, from astronomical observation at a given station (generally at the north or the south end of the series), the azimuth or bearing of another station.

This grand improvement, by which inequalities of surface are spanned or leaped over, is due to Willebord Snell, Professor of Mathematics in the University of Leyden, who succeeded his father in the chair in the year 1613, and died at the early age of thirty-five, in the year 1626. The description of the measure was published in 1617, and a complete analysis of it is given by Delambre in the second volume of his History of Modern Astronomy.

As might be expected in carrying on a new and somewhat complicated operation, errors crept in; also two angles only of a triangle were measured in many instances, and a few of the angles were too acute to allow of precision where seconds were not taken into account.

The base lines were in terms of the Rhinland foot, which had been compared with other standards, except the stadia of Greece and Arabia, which were not known.

Three base lines were measured with perches, each perch 12 Rhinland feet. Their respective lengths were 326·4, 348·1, and 166 perches (one was partly inferred).

The angular instruments consisted of a $2\frac{1}{5}$ feet radius quadrant, a semi-circle of $3\frac{1}{2}$ diameter, and for the astro-

nomical work an iron quadrant of $5\frac{1}{2}$ feet radius, the divisions on brass. These instruments could be read to the accuracy of a minute.

The triangulation between Alcmaer and Bergen-op-Zoom gave a meridian distance 33930·2 perches, corresponding celestial arc 1° 11′ 30″, and one degree = 28,473 perches. Between Leyden and Alcmaer one degree, = 28,510 perches. Snell adopted 28,500 perches, = 55,100 toises or 66·73 British miles. Thus the value for one degree was less than the truth by $2\frac{1}{4}$ British miles.

Snell discovered some time after that he had misplaced several angles; therefore he recalculated the work, and pushed on the triangulation to Anvers and Malines; and resolved in 1622 to publish a correct edition. But an inundation round Leyden having happened, followed by frost, of which he took advantage to measure a base on the ice of 475 perches, situated between the village of Voorschotten and the chateau of Douzy, he measured this base three times, and connected it with the tower of Leyden and that of Sooterwonde, and concluded the distance of these towns to be 1097·117 perches, instead of 1092·33, found previously. Upon this foundation he undertook to calculate the whole of the triangles for the third time, but death intervened.

The arc of the meridian was a small portion of Snell's labours. He wrote on trigonometry. Huygens was of opinion that he discovered the law of refraction before Descartes. He applied the celebrated problem of Hipparchus to determine the position of his observatory from three points of his triangles, and gave a general solution of the problem. His history and analysis of ancient

geodetic operations is, upon the whole, a fair performance. He translated into Dutch and Latin the work of Ludolphe van Ceulen on the Circle, &c.

In the Memoirs of the Academy of Sciences of Paris, year 1718, Cassini published a commentary on Snell's arc, but with small success, in accounting for the discrepancies. Musschenbroek was more successful when he filled the Natural Philosophy chair at Leyden a century after Snell, whose manuscripts fell into his hands, excepting those relating to the triangulation to Anvers and Malines.

Musschenbroek re-observed many of the angles, and found the greater part of them correct. Of the remainder, the errors were only one or two minutes. Then, founding a new calculation on the angles last taken by Snell and the corrections he had made, and upon Snell's second base (? the base measured on the ice) and observation of the latitude of Alcmaer, the numbers were :

	°	′	″
Latitude of Alcmaer	52	38	34
Latitude of Bergen-op-Zoom ..	51	28	47
	1	9	47

Consequently, the terrestrial value of one degree 29514·23 Rhinland feet = 57033·08 toises of Paris = 69·07 British miles.

This almost perfect coincidence with the true value is astonishing, and thus terminated Snell's celebrated arc, as reobserved and recomputed a century after the death of its ingenious author.

The principal errors were in the latitudes of the termini.

The next measure was performed in England by Richard Norwood, reader of mathematics.

On June 11, 1633, with a sextant of more than 5 feet, he observed the sun's meridian altitude near the Tower of London to be 62° 1′; and on June 6, 1635, he found the sun's altitude at York to be 59° 33′. Difference of latitude, 2° 28′. The distance was measured with a chain of 99 feet; the bearings on different parts of the road were observed with a circumferenter, and the measures reduced by a table. The number of chains was 9,149, from which he found 1° = 61,199 fathoms, exceeding the mean degree by 2,450 feet.

The next in order of date was performed in Italy by John Babtist Riccioli, an astronomer, geographer, mathematician, and philosopher, born in the year 1598, died in the year 1671.

At sixteen years of age, Riccioli entered the Society of Jesuits, and in due time became Professor of Philosophy, Scholastic Divinity, &c., in the Jesuits' Colleges of Parma and Bologna. He wrote on a variety of subjects, was a follower in the wake of Ptolemy, entertained a high opinion of ancient science, and endeavoured to screen its defects from the Copernican theory. A pretty complete history of his works is given in Delambre's History Modern Astronomy, vol. 1, p. 274, and vol. 11, p. 672, and "Reflexioms sur la Mesure de la Terre, du P. Riccioli," p. 296, of "Suite des Memoirs de l'Academe Royale des Sciences," of Paris, year 1718, by Cassini.

Riccioli's arc of the meridian was situated between Bologna and Modena, and measured by triangulation. The base 1,094 Bologna paces, length of arc 20,439 Bologna paces, corresponding celestial arc 0° 19′ 25″, measured with Ptolemy's "regles parallatique en triangle." From the above numbers one degree = 63,159 paces = 61,478 toises = 74·46 British miles, being about 5·4 miles in excess of the true value, or 1,944 miles on the circumference of the earth. The error of Eratosthenes, calculated by the Greek stadium of 500 Greek feet, was equivalent to about 10 degrees on the circumference; Riccioli's amounted to 28 degrees!

The causes of failure were,—ill-conditioned triangles, some of the angles only 7 or 8 degrees—the three angles of each triangle were not measured, therefore he could not check mistakes, the arc measured was only one third of the length to be determined,—the base was too short.

Other methods he proposed for finding the circumference of the earth need not be referred to.

The arc measured by Picard in the years 1669-1670, between Malvisene, near Paris, and Amiens, was distinguished by instrumental improvements and greatly increased precision.

The triangles were measured with a quadrant of 3 feet radius, armed with two telescopes instead of plain sights, and the astronomical observations for amplitude were made with a zenith sector of 10 feet radius. The base was 5,663 toises, the base of verification 3,902 toises.

The distance between Malvisene and Sourdon was found to be 68430 toises (and extended on) between Malvisene and Amiens 78,850.

The corresponding amplitudes were 1° 11′ 54″ and 1° 22′ 55″, and the relative values of one degree 57,064 and 57,057.

The adopted mean 57,060 = 364,873 British feet, or about 130 feet in excess of the mean degree hitherto employed for comparisons.

The result from Picard's measure became known to Sir Isaac Newton about the year 1676—the very element he needed for testing the theory of gravity, by comparing the semi-diameter of the earth with the semi-diameter of the moon's orbit, thence the force of gravity at the earth and moon.

Respecting standards of length, Picard recorded the following, which will be referred to presently: "La longueur de la toise de Paris et celle de pendule à secondes, telle que nous l'avons établie, seront soigneusment conservés dans le magnifique observatoire que S.M. fait batir pour l'avancement de l'Astronomie."

In compliance with Picard's recommendation in the year 1681, the Minister Colbert obtained the King's sanction to the triangulation of the meridian passing through the Paris Observatory, to serve as the base of a map of France. Accordingly Cassini, accompanied by MM. Chazelles and other assistants, commenced from Picard's base and worked southward until the winter of 1683 set in. In the mean time, La Hire, assisted by MM. Ponthendt and another worked northward. Colbert died in September, 1683. His successor—Louvois—ordered Cassini to return to the Observatory and wait for a more favourable season, which season presented on the expiration of an interval of seven years.

The operation was resumed on August 20, 1700, and the section extending to the Pyrenees—Paris to Colleoure —was completed (?) in the year 1701 (the dates are not given with the triangles in the printed account). The triangles were computed from Picard's base, and a base of verification near Peripignan of 7,246 toises and 2 feet. The amplitude was determined by observations with a zenith sector and found to be 6° 18′ 57″, the terrestrial measure 360,614 toises, accordingly 1° = 57,097 toises.

The northward triangulation appears by the printed account, page 191, to have been commenced on the 2nd of June, 1718, at Montdidier, from which Picard's Sourdon station was visible. The date of arrival at Dunkirk is not recorded, but the number of triangles between Paris and Dunkirk was 29, of which 9 had been measured by Picard.

A base of verification was measured at Dunkirk on the beach, 5,464 toises and 3 feet in length. The terrestrial distance between Paris and Dunkirk, 125,454 toises, the amplitude 2° 12′ 9·5″, consequently 1° = 56,960 toises.

The observations at Dunkirk for amplitude were finished on the 10th of August, 1718, and the party started for Paris without delay, to observe there the zenith distances of the same stars.

From these operations, the mean value of one degree southward of Paris was 57,097 toises, northward from Paris to Amiens, by Picard, 57,060, northward from Paris to Dunkirk, 56,960.

These numbers indicated that the degrees increased instead of decreased in length towards the equator, and thus began the war of the prolate spheroid. Combining the

theory of centrifugal force developed by Huygens with the properties of fluids, Newton inferred that the figure of the earth was not a sphere, but a spheroid; consequently that the polar axis must be shorter than the equatorial diameter, and gravity must diminish towards the Equator; hence the reason why Richer's clock, which had been adjusted to mean time at Paris, lost above two minutes daily at Cayenne.

However, the Cassinis, father and son (James and Cassini de Thury), adhered to their measured arc in opposition to the result of Newton's profound investigations, until H.M. Louis XV. put an end to the controversy by sanctioning the measure of a degree at the Equator and another in a high northern latitude. In May, 1735, Bouguer, Godin, Lacondamine, and others departed for Peru, and in July, 1736, Maupertius, Clairaut, Camus, Lemonnier, and Outhier reached the Gulf of Bothnia.

The Peruvian arc was measured in the great valley of the Andes. The lowest point of the arc was at an elevation of a mile and half above the level of the sea. A base of 6,272 toises was measured near Quito; another of 5,259 toises near the northern extremity. The terrestrial length of the arc reduced to the level of the sea was 176,945 toises, and the corresponding celestial arc $3^\circ\ 7'\ 1''$. The resulting value of one degree reduced to the level of the sea, 56,748 toises.

On this occasion each star was observed for latitude simultaneously at the termini of the arc,—an admirable method where practicable, forasmuch as it obviates any uncertainty in the reductions to mean positions; and altogether this arc is regarded as first-rate.

We have neither time nor space to detail the many disheartening circumstances and personal dangers which were encountered and overcome. Bouguer and Lacondamine returned by separate routes, and each published his own account of the expedition.

The operations of the party who went northward were carried on in the valley of the Tornea, and also under difficulties. The base was measured on the ice. The celestial arc was 0° 57′ 29″.6. The terrestrial 55,023 toises, therefore 1° = 57,422 toises, which exceeds the Peru degree by 674 toises = 4,322 British feet, and thus expired the prolate spheroid.

While these two important operations were being carried on, J. Cassini, his son Cassini de Thury, and La Caille, remeasured the French arc from Dunkirk to Perpignan. Picard's base was remeasured, on this occasion with four iron rods each fifteen feet long, "bien dressées, et rendues inflexibles par une regle pose de champ dans presque toute leur longueur."

On this occasion La Caille searched the Observatory for Picard's Paris toise, which was to be preserved at the Observatory (see page 395). Instead of a toise,—viz., a six French feet bar,—he was surprised to find only a four feet, well-made iron scale, with Picard's name upon it, divided throughout its length in inches and lines, and bearing evidence of having been much used. This scale proved shorter than the reference scale du grand Châtelet by one thousandth part. Therefore, Picard's base, hitherto regarded = to 5,663 toises, was 5,657, two feet, and eight inches. This fact La Caille verified by a "multitude of combinations and calculations."

Cassini and La Caille's measure of the new base with the iron rods was repeated five times in the month of June, July, and August, 1740, noting the temperatures with Reaumer's thermometers, which fluctuated between 12° and 30°. The rods, having been adjusted to the standard temperature 14°, were corrected accordingly. The length was 5,729 toises, afterwards increased to 5,748.

The preceding may be regarded as the index to the care taken by Cassini and La Caille, in the verification of the whole of the French arc of the meridian. The latitudes of five stations were observed with almost modern precision, the corrections for aberration and precision were taken into account. Each of the four intervals gave a value of one degree as follows:—

Perpignan—	Rodez	1° = 57,048·5	toises.
Rodez—	Bourges	1° = 57,040	,,
Bourges—	Paris	1° = 57,071	,,
Paris—	Dunkirk	1° = 57,084	,,

Here the increasing lengths towards the Pole is evident.

An account of this admirably performed operation was published in a neat 4to volume under the title "La Meridienne de Paris Verifiée."

In 1750, the Jesuits Boscovich and Le Maire measured an arc from Rome to Rimini. Celestial arc 2° 9′ 47″; terrestrial 123,221·3 toises. One degree corrected 56,966·3 toises. Mean latitude 42° 59′.

In 1752, the Abbe de La Caille measured an arc at the Cape of Good Hope. Celestial arc 1° 13′ 17″·3; terrestrial 69,669·1 toises, base 6,467 toises. Whence 1° = 57,037 toises, which on the elliptic theory and compres-

sion $\frac{1}{300}$ would be the length of a degree in latitude 45° nearly, provided the Northern and Southern hemispheres are similar.

The south extremity of the arc was La Caille's Observatory, situated in the yard of the house No. 2, Strand-street, now the property of James Searight, Esq., at which the great mass of Table Mountain bears S.W., the meridian passing near the eastward side of the mountain. The northern extremity of the arc was near the north end of Piquetberg. Further particulars are reserved for the account of the *verification* of this arc.

In 1762, an arc was measured in the meridian of the Vienna Observatory by Liesganig, a Jesuit, of 2° 56′ 45″·5, apparently with all practicable care, which gave 57,077 toises for the value of 1°. But the identity of one of the stars observed is uncertain, and at a subsequent date one of the triangles was believed to have been impossible. Another was measured by him on the Plain Theiss, from which 1° appeared to be 56,881 toises. These measures are not favourably regarded.

Beccaria, a Jesuit, measured an arc in the Plain of Lombardy, both extremities of which terminated at the foot of lofty mountains. The value of one degree was found to be 57,468 toises. Mean latitude 44° 57′. A few discrepancies were found afterwards.

In 1764, an arc was measured in Maryland and Pennsylvania, North America, by Messrs. Charles Mason and Jeremiah Dixon (see Phil. Transactions for 1768). Triangulation was not employed, the whole length was measured direct with rods. Mean latitude 39° 12′ value of 1° = 60,625 fathoms = 56,888 toises.

Excepting Norwood's arc in the year 1637, and the one last mentioned, England had not taken an active share in geodetic operations; but the transcendent genius of her Newton had grasped and demonstrated on sound mathematical and physical principles what must be the general figure of the earth, and perhaps led indirectly our intelligent and active neighbours to the crucial experiment of the degree at Peru and Tornea. However, when peace was concluded in 1763, Government took into consideration a general survey of the kingdom, but the American war supervened, and little was done beyond minor surveys about London by General Roy, until the conclusion of peace in 1783.

In October, 1783, the French Ambassador transmitted to one of His Majesty's principal Secretaries of State "a memoir of Cassini de Thury, which set forth the great advantage that would accrue to astronomy by carrying a series of triangles from the neighbourhood of London to Dover, there to be connected with those already executed in France, by which combined operations the relative situations of the two most famous observatories in Europe, Greenwich and Paris, would be more accurately ascertained than they are at present."

The memoir was transmitted to Sir Joseph Banks, President of the Royal Society, General Roy was charged with the execution of the operation on the part of the Royal Society, and the selection was approved of by His Majesty.

The instruments contrived for the operation were constructed by the celebrated Ramsden, and were far superior to those hitherto employed in geodetic investigations.

The theodolite form was adopted for measuring the horizontal angles. As the instrument still exists, we may speak of it in the present tense. The circle is three feet in diameter, and is read by two opposite micrometer microscopes, whose register heads are divided to single seconds. Each of its two telescopes is three feet focal length, object glass two and a half inches. The upper telescope is sufficiently elevated to pass freely between its supports, the lower lies under the centre of the instrument; its range is small, but sufficient for adjusting it to a terrestrial object, that it may serve for detecting a shift of the instrument.

The accuracy and power of this magnificent theodolite were exhibited in the comparison of the sum of three observed angles with two right angles, and when the area of the triangle was sufficiently large the spherical excess was exhibited.

For base-line measurement, the chief articles were, trussed rods of red pine, 20 feet in length; glass rods 20 feet in length; and a steel chain, in duplicate, of peculiar construction, 100 feet in length, by Ramsden.

For the observation of latitudes, Ramsden made a zenith sector of eight feet radius; divided arch, 15°; object glass, four inches.

For a particular description of the several instruments, and the elaborate experiments on the expansion of the wooden rods, glass tubular rods, and steel chain, the Philosophical Transactions or the Account of the Trigonometrical Survey of England and Wales must be consulted.

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On finding that wooden rods would not afford the desired degree of accuracy, they were laid aside in favour of the glass rods, and when, after repeated measurement with the steel chain, corrected for expansion, the resulting length was practically the same as with the glass rods, the latter, for obvious reasons, were dispensed with. The length of the base was 27404·72 feet, measured in 1784. His Majesty honoured the scene twice during the operation, accompanied once by the Queen.

The next measure of an arc of the meridian was the progeny of the French Revolution of 1790, undertaken by the French Government for the purpose of obtaining a standard of linear measure in terms of the meridional circumference of the earth. For this object the arc from Dunkirk to Perpignan was triangulated a third time, and prolonged from the latter to Barcelona,—finally to Formentera, one of the Belearic Islands.

Delambre and Méchain executed the work with undaunted courage midst the miseries and dangers of the Revolution, which are recorded in Delambre's able work, "Base du Système Métrique Décimal."

[NOTE.—Having thus far exceeded the time and space assigned to the author, he is obliged to postpone to another opportunity the intended notice of the important geodetic operations which were performed during the interval between the year 1800 and the verification of La Caille's arc at the Cape of Good Hope.]

The anomaly presented by La Caille's Cape arc of the meridian, on the assumption that the ellipticity derived from measures in the northern hemisphere should hold for the southern, created a desire to have the measure verified.

The stations were identified within narrow limits, likewise the position of the base-line, but no marks remained to define its termini.

Having reported the result of my investigations, Mr. Airy, the Astronomer-Royal, proposed to send out Bradley's zenith-sector, to enable me to verify the celestial arc, which the Lords Commissioners of the Admiralty were pleased to sanction. This powerful instrument, with which Dr. Bradley discovered the aberration of light and the nutation of the earth's axis,—an instrument of national and universal celebrity—was not sent to sea without a certain amount of misgiving. It was placed on board H.M.S. *Wellesley*, under the command of Captain Maitland, who told me on landing it in Table Bay he was rejoiced to be released from a charge regarding which he had received countless admonitions.

A description of this instrument, with numerous engravings, is given in the first volume of "Verification and Extension of La Caille's Arc of the Meridian."

464 observations on 40 stars were made with the sector at Klip Fonteyne, and 669 in Cape Town, gave 1° 13′ 17″.12 for the value of the celestial arc. La Caille's determination was 1° 13′ 17″.33, differing only by one two-hundreth part of a second in excess! This result removed all doubt regarding the apparent length of the celestial arc, but left uncertain the *true* length, because

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the disturbing force of the mountain masses on the plumb-lines of the sectors must be common to La Caille's and Bradley's.

For the verification of the terrestrial measure, a very accurate base-line was needed. The most essential part of the apparatus needed for the purpose was lent by Colonel Sir Henry James, R.E., Superintendent of the Ordnance Survey Department, consisting of "Colby's compensation bars," constructed on the principle of the chronometer balance.

The line was divided into six sections, and each section compared with the other sections by triangulation, in order to prevent the possibility of mistakes in reckoning the number of the bars, and to obtain the probable error of measurement. The total length reduced to the level of the sea at Saldanha Bay was 42819·065 feet, and the probable error of measurement $\pm$ four tenths of an inch.

Each terminus of the base has been preserved as follows: The centre stone of a massive block of stone masonry, about four feet square, and from four to five feet deep, the upper surface of smooth cut-stone, was drilled, and plugged with lead; a jagged brass pin, 0.3 inch in diameter, was driven into the lead. The pin carries a small platinum stud, even with its top. An arched stone covers the centre and a few of Her Majesty's coins, and over the whole a massive pyramid of stone and mortar masonry, which carries a suitable inscription, cut in a tablet of Robben Island stone. The south-west pyramid is in the neighbourhood of a farm-house, which was occupied in the year 1841 by a Mr.

Kotze. There is a farm-house about a half-mile distant from, and west of the north-east pyramid. The Uyle Kraal farm-house, the property of Mr. Jasper Smidt, is rather more than $3\frac{3}{4}$ miles west of the south-west pyramid. The habitation existed in the year 1751, as appears by La Caille's map of his triangulation.

By the modern triangulation, the error of La Caille's base appears to be $13 \cdot 59$ feet $= 2 \cdot 12$ toises in excess; the error on his meridional length, 144 feet in excess.

If we adopt the recognized elements of the earth's figure for calculating the latitudes from the triangulation, and compare with the latitudes derived from the sector observations, the effect of local attraction at the Cape Town end $= 1'' \ 36 -$; at the north, or Klip Fonteyne end $= 7'' \ 19 +$; the sum $8'' \ 55$, equivalent in round numbers to about 860 feet, will represent the effect of the mountain masses. Therefore, the error of La Caille's arc, arising from natural and other causes, may be taken at 1,000 feet, or about 820 feet on one degree.

La Caille's arc being useless as an element in the figure of the earth, permission was granted to extend it, in other words, to measure a new arc.

The meridian of this arc extends from Cape Point, near the lighthouse, through the transit room of the Royal Observatory, to a spot in the Bushman Flat, north of the Kamies Berg. The stations were chiefly on the tops of mountains, and as near as practicable over the centres of their masses. A side triangulation extended from Cape Point to Cape L'Agulhas.

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Sir Henry James has included the Cape arc with the arcs measured in England, France, India, Russia, Tornea, Peru, &c., to obtain the nearest approach to the figure and dimensions of the earth. The result is as follows :

Equatorial semi-axis	20,926,062 feet.
Polar semi-axis	20,855,121 feet.

With these elements he computed what should be the latitude of each station on the ellipsoid. The discrepancies between the observed and computed latitudes of the Cape stations are less, upon the whole, than are exhibited by the stations of the arcs measured elsewhere, affording a proof that the curvature of the meridian at the Cape of Good Hope is similar to the curvature of the meridian of the corresponding latitudes of the northern hemisphere.

The station points of the triangulation are preserved to facilitate a correct survey of the Colony. The eastward sides of the triangles from Kibiskow to Cape Hanglip would serve as so many base lines for a sweep across the interior of the Colony. This matter has been often mooted with little effect ; trigonometric operations are expensive, and an immediate return for the cost is not their prominent feature,—the partial triangulation of the south-east border of the Colony was the result of an accident attended by a sad loss of life.

Shortly after the wreck of H.M.S. *Birkenhead*, on Danger Point, the Lords Commissioners of the Admiralty sent out an able hydrographical surveyor and an assistant to survey the shore line between Capes Hanglip and L'Agulhas. For geographic zeros, the arc of the meridian stations as far as L'Agulhas were available, and Capt. Dayman's splendid chart of the run from Hanglip to L'Agulhas was the result. On this service being accomplished, their Lordships offered to continue the Admiralty survey eastward as far as might be desired, provided the Colony would fix the necessary geographic points, which was agreed to. The operation was commenced in the year 1859, by Capt. Bailey and a small party of Royal Engineers, with instructions to run a double chain of triangles of 80 or 90 miles in breadth, the seaward stations to command the shore. For base he took the distance between the arc of the meridian stations on Kapoc Berg and Great Winterberg, and on the triangulation reaching the Fish River, he measured a base of verification near Graham's Town. The triangulation extended from Cape L'Agulhas to the Bashee River. Thus was begun the Admiralty survey of the shores of the Cape Colony, which has been continued up to the present time, the arc of the meridian stations being available for the west seaboard.

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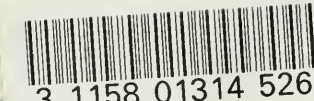
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